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ABSTRACT

A summary of project activities for improving vocational teacher education department linkages with business, industry, and labor is presented in this final report. Described are goals and objectives of the project, the project planning committee, the national survey of vocational teacher education departments, the review of current practices, the resource handbook development, the training workshop, and an overview of the final resource handbook sections. Addendums and handbook sections make up the greater part of the report and include a review of current practices, a summary of survey results, and introductory descriptions of the handbook sections. These sections include staff development, advisory committees, cooperative internships, personnel exchange programs, workshops, site visits, resource persons, and program support. (TA)

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IMPROVING VOCATIONAL TEACHER EDUCATION DEPARTMENT LINKAGES WITH BUSINESS, INDUSTRY, AND LABOR, FINAL REPORT.

PROJECT NO. OH-V-N-J

BEST COPY AVAILABLE

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June, 1977

CE 016 139

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NATIONAL INSTITUTE OF EDUCATION

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. Generating knowledge through research

. Developing educational programs and products

. Evaluating individual program needs and outcomes

. Installing educational programs and products

. Operating information systems and services

. Conducting leadership development and training programs

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TITLE OF PROJECT

Improving Vocational Teacher Education Department Linkages with Business, Industry, and Labor (OH-V-N-J)

INSTITUTION

The Center for Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

DATES OF PROJECT

July 1, 1976 - June 30, 1977

PRIORITY

The project was one of the Education Professionals Development Act (EPDA) top priority areas identified for funding by The United States Office of Education (USOE) in 1976-1977.

SPONSOR

The United States Office of Education
Ohio Department of Education, Division of Vocational Education

REPORT OVERVIEW

This final report of the project includes a summary of project activities including goals and objectives of the project, the project planning committee, the national survey of vocational teacher education departments, the review of current practices, the resource handbook development, the training workshop and the review of the final resource handbook sections.

Included as addendums to this report are the review of current practices, the summary of survey results, and an introduction to the handbook sections. The handbook sections are printed separately.

Project Major Events

First Planning Committee Meeting	September 10, 1976
Mail Survey Instrument	September 24, 1976
Preliminary Draft of Literature Preview	November 1, 1976
Preliminary Draft of Survey Responses	November 1, 1976
Second Planning Committee Meeting	November 16, 1976
Review Panel for Resource Handbook	February 15-16, 1977
Third Planning Committee Phone Meetings	March, 1977
Training Workshop	April 15-16, 1977
Final Report (including review of literature, survey results, and overview of training resource package)	June 30, 1977

Goals and Objectives of the Project

The goal of the effort was to develop a training resource package for use by vocational teacher education departments to help improve business, industry, and labor inputs into their preservice and in-service program. The long range objective of the project was to foster closer vocational teacher ties with the private sector in promoting and developing more effective vocational education programs.

The objectives of the project were as follows:

1. To conduct a mail survey of vocational teacher education departments to determine:
   a. the extent to which each department has developed business, industry, and labor inputs into its personnel development programs, and
   b. the interest of each department in sending a representative to a one-day training program to be conducted at The Center for Vocational Education.
2. To conduct a review of related literature to gain information about current programs and to secure copies of documents which appear to have utility for the preparation of the training resource handbook.
3. To conduct a review panel at The Center in February, 1977 for the purpose of developing a generalizable training resource handbook to show how business, industry, labor inputs into vocational education personnel development programs can be improved. Panel reviewers were to include ten persons selected from vocational teacher education departments that are committed to work on the problem area and have demonstrated expertise in the area.
4. To conduct a dissemination and training conference at The Center on April 18 and 19, 1977 for approximately sixty selected vocational teacher educators and representatives from business, industry, and labor.

Project Planning Committee

A project planning committee provided general guidance to the project activities; the planning committee was selected by project staff with the approval of the regional EPDA project officer. The criteria used by project staff in the selection of committee members included prior experience in establishing business, industry, labor, and education programs and linkages. The planning committee members were to reflect representation from a state department of vocational education, a local vocational administrator, a vocational teacher educator, a labor representative, and a representative from business-industry, as well as the ex-officio USOE representatives.

The planning committee members were:

- Louis Mendez, USOE Central Office;
- Homer Edwards, USOE Regional Office;
- Darrell Parks, Ohio VEPD Coordinator, Ohio Division of Vocational Education;
- Jerome Moss, University of Minnesota;
- Albert Lorente, United Auto Workers;
- Robert Pecka, Western Electric Company; and
- Herbert Chamberlain, The Eastland Vocational Center.

A detailed listing for each member of the planning committee is provided in Appendix A.

The planning committee was to provide guidance to project staff in conducting the overall project activities. More specifically, the responsibilities of the planning committee were:

- to review the survey instrument;
- to review the survey data collected from the instrument;
- to establish criteria for the selection of ten vocational teacher education departments for participation in the workshop;
- to assist in identifying participants for the workshop and training program;

- to review materials for inclusion in the training resource handbook;
- to draft preliminary outlines for the training resource handbook; and
- to provide recommendations for conducting the panel review work session and the training workshop.

Review of Current Practices

A thorough review of related literature was conducted as a developmental activity for the purpose of identifying resource materials, resource persons, and information on projects that could be utilized in other project activities. While conducting the literature search, the project staff attempted to secure copies of any documents that appeared to have utility for preparation of the resource handbook.

Documents for review were selected from an informal data package resulting from a computer search of Abstracts in Instructional Materials/Abstracts in Research Materials (AIM/ARM) and Educational Resources Information Center (ERIC). The search was further extended to include dissertations, abstracts, periodicals, magazines and special publications from the holdings of the Research Library at The Center. Additional leads for resource documents were identified through the project's national survey of vocational teacher education department chairpersons and contacts with state EPDA coordinators. Discussions were also held with persons who have been and currently are involved in business, industry, and labor linkage activities.

Information identified for the review of current practices included advantages of educators establishing linkages with business, industry, and labor; caveats or constraints to establishing linkages, successful case histories in establishing linkages which included activities in internships, personnel exchange programs, use of advisory committees, use of resource persons and site visits. The project staff found that there was a scarcity of published material about projects and activities conducted by vocational teacher education departments that utilize inputs from business, industry, and labor. Most published material describes activities and projects that focus on the secondary school.

A preliminary draft of the review of current practices was prepared for review at the second planning committee meeting, November 1, 1976. The revised review of current practices is contained in Addendum One of this report.

National Survey of Vocational Teacher Education Departments

One of the several major developmental activities of the project was to conduct a national mail survey of vocational teacher education departments to determine the extent and type of business, industry, and labor inputs being made into department programs and activities. To accomplish this, a four-page survey questionnaire was developed by The Center project staff with the assistance of the Project Planning Committee members. A copy of the survey instrument is provided in Appendix B.

The purposes of the survey were:

- To identify the extent to which vocational teacher education departments are utilizing inputs from business, industry, and labor in promoting and developing more effective programs;
- To identify relevant resource materials and references which could be utilized in developing the training resource handbook for teacher educators;
- To identify content or topics that should be presented in a resource handbook on utilizing inputs from business, industry, and labor contacts;
- To determine the interest of institutions in implementing or improving business, industry, labor inputs into its personnel development programs; and
- To determine the interest of institutions in sending representatives to a training conference to be conducted as a part of project activities.

In addition, information provided in the survey was to be used to aid in the identification, based on a review of the survey information collected, and selection of representatives from ten vocational teacher education departments that are exemplary in their use of inputs from business, industry, and labor. These persons were invited to participate in an in-depth review session of a preliminary draft of the training resource handbook materials.

The field test of the survey instrument was conducted by the Evaluation Division of The Center. Survey questionnaires were printed and mailed first class, with pre-paid return envelopes to 664 chairpersons of vocational teacher education departments throughout the nation on September 24, 1976. A cover letter accompanied each questionnaire; this letter was used to describe the project effort and the purpose of the study. A copy of the cover letter is provided in Appendix C. In order to meet project schedules, survey respondents were asked to return the completed questionnaire within five (5) working days.

The list of departments contacted in the survey was compiled from national directories of professional organizations of vocational teacher educators.

Due to budget and time restrictions, no follow-up survey was made of non-respondents. Since the purpose of the survey was to gather general information for developmental purposes, rather than to conduct a rigorous survey of the state of the art, the project staff felt that the 46% return rate on the first mailing was adequate to meet its information needs. Project staff felt that the return rate indicated an interest in the need for business, industry, and education linkages.

An information copy of the instrument was also sent to each state EPDA coordinator. It was not intended that they complete and return the questionnaire; their assistance was sought to help identify useful materials related to the project objectives and information on local projects related to this project. A copy of the cover letter to EPDA coordinators in provided in Appendix D.

Data collection for inclusion in the national survey was conducted for a seven week period between September 24, 1976, and November 15, 1976. The summary of findings of the survey are contained in Addendum Two of this report.

Resource Handbook Development

The goal of the project was to develop a training resource handbook for use by vocational teacher education departments to help improve business, industry, and labor inputs into their programs.

The Resource Handbook went through several developmental stages that will be described in this section of the report. First, content areas for the handbook were tentatively determined, based on the information obtained from the review of the literature and the summary of the results of the national survey. The survey results indicated that vocational teacher educators felt a need for help in the following areas: advisory committees, gaining administrative support, work experiences, internships, training, exchange programs, cooperative programs, resource materials, and program funding.

After analyzing the general groupings of responses, as well as specific responses, the project staff decided that draft materials would be developed in nine areas: staff development, advisory committees, cooperative employment, internship experiences, personnel exchange programs, workshops, site visits, resource persons, and program funding.

A tentative format for the handbook sections was developed. It was felt that developing separate handbook sections for each of the topic areas would allow the resource materials to be more easily used for a variety of purposes. Draft versions of the handbook sections were developed by project staff. The draft Resource Handbook sections were based on information gathered during literature searches, contributions of vocational teacher educators, and the adoption of ideas thought most appropriate to the needs of vocational teacher education departments.

Resource Handbook Development Objectives

The development of drafts of the Resource Handbook was guided by several basic objectives. These included:

1. To identify types and sources of information appropriate to the business, industry, and labor interests of vocational teacher departments.
2. To describe for vocational teacher educators appropriate ways to access and utilize selected business, industry and labor information sources.
3. To organize and present resource information in a way that encourages its use in meeting vocational teacher education department objectives.

The draft versions of the handbook sections were revised by vocational teacher educators with experience in the handbook areas. Details of the review panel are described below.

Review Panel

The purpose of the review panel was to critique the first draft of the generalizable training Resource Handbook to show how business, industry, and labor linkages with teacher education departments could be improved. Review panel participants were to include ten persons selected from vocational teacher education departments that had demonstrated expertise in designated areas.

The process of identifying potential candiates for the review panel included the following steps:

1. Review of the literature, the survey results, and EPDA coordinator recommendations resulted in a list of names of vocational teacher educators active in staff development, advisory committees, cooperative employment, internships, personnel exchange programs, workshops, site visits, use of resource persons and program funding as related to business, industry, and labor inputs.

2. These names were reviewed and a list of candidates was developed. Criteria included:

   - Candidates would be representatives of a variety of USOE regions.
   - Candidates would reflect a variety of service areas.
   - Candidates would have successful experiences in two or more of the items itemized in step #1.
   - Candidates would express a willingness to share their experiences with other vocational teacher educators.

Project staff then contacted potential review panel participants to determine their availability. Ten agreed to attend the review panel meeting and two others agreed to review project materials on their own time.

On February 15-16 the review panel members met at The Center to review and react to the draft handbook materials. Appendix E is the listing of the review panel participants.

The work of the review panel at this point was critical in the revision and completion of the draft Resource Handbook in order to insure that its content and approach would be most useful to vocational teacher education departments across the country. The members of the review panel added the unique perspective of their professional experiences and knowledge of potential operational problems that affect the utilization of business, industry, and labor resource information in a staff development or teacher education setting. To benefit most from the practical experience, suggestions, recommendations, and ideas of review panel members, the work session time included both individual consultation and small group meetings with Center project staff.

The reviewers were given directions to review the drafts as to content and format - both on a general and a detailed basis. In the overall review, the workshop participants were asked the following questions:

1. How appropriate are the nine subjects selected for the information sections to the needs of vocational teacher educators?
2. Is the series of nine information sections organized in the most logical order?
3. Is the amount of information or level of detail appropriate to the information needs of vocational teacher education departments?
4. What additional types of background information or suggested procedures are needed to help the reader best utilize the Resource Handbook content?
5. Are the subjects selected for the Appendix list the most appropriate or useful? What is the minimal amount of useful information that could be contained in these contact source series?
6. Will the Resource Handbook, as designed, assist vocational teacher educators in better utilizing business, industry, and labor information sources?

The following questions were given as guidelines for the review of the individual sections. In studying the various information sections, what recommendations and inputs do you have considering:

1. What additional information is needed to help the reader better understand the potential value of the information section topic to vocational teacher education?
2. Are the suggested procedures and recommendations described appropriate to most vocational teacher education departments?

3. Is the content of the information section presented in a logical order that aids the understanding and utilization of the ideas described?

4. Are the implementation process steps outlined those most useful to someone becoming involved in that area for the first time?

5. Does the information section need any addition or reduction of detailed information to make it more useful to the reader?

6. Are the problems or other cautions related to utilization of suggested activities described in the information section clearly defined?

7. What additional example materials or resource materials are needed to insure better utilization of activities described in the information section?

Review Panel Handbook Development

Based on the reactions and inputs from the review panel participants, the project staff made revisions in the number and titles of handbook sections, in the format of the sections, and in the content of the individual sections. Sample materials and procedures based on the experience of the participants were incorporated into the handbook.

The workshop edition of the Resource Handbook featured the following separate handbook sections:

#1 Staff Development:
Creating a staff Development Plan for Business, Industry, Labor Involvement.

#2 Advisory Committees:
Utilizing Business, Industry, Labor Advisory Committees.

#3 Cooperative Internships:
Establishing Cooperative Internship Programs Involving Business, Industry, Labor.

#4 Personnel Exchange Programs:
Establishing Personnel Exchange Programs Involving Business, Industry, Labor.

#5 Workshops:
Involving Business, Industry, Labor Through Workshop Programs.

#6 Site Visits:
Conducting Business, Industry, Labor Site Visits.

#7 Resource Persons:
Involving Resource Persons From Business, Industry, Labor.

#8 Program Support:
Securing Program Support for Business, Industry, Labor Involvement

The revised format for the handbook sections contained a core of similar types of material with flexibility in format built in as the subject matter dictated. The revised format for each was as follows:

Introduction:	This part of the handbook section contains a need statement, statement of the contributions and benefits of this approach to the department faculty overview of the handbook section, and a list of objectives for the handbook section.
The(section title) Approach:	Included in this part are descriptions of the basic activities that are common to all (section title) activities.
Alternative Approaches:	Alternative forms and procedures are presented in this section to aid departments in developing plans that are unique to their own situation.
Administrative Details:	Part of planning involves investigating and establishing policies and procedures. This part contains suggested items to consider.
Planning Notes:	This part is designed to help the faculty develop plans for the effective use of (section title) by their department.
Selected References:	References in this part include sources of information used in the handbook section as well as additional references that may be helpful to your department.
Resource Materials:	The example materials contained in this part are illustrative of the types of materials you would be developing as part of your department's involvement with (section title).

The Training Workshop

On April 18 and 19, 1977 the training workshop was conducted by project staff at The Center for Vocational Education, Columbus, Ohio for approximately sixty selected vocational teacher educators and administrators and representatives from business, industry and labor. The participant list for the training workshop is provided in Appendix F.

The objectives of the workshop were:

1. To stimulate greater involvement of vocational teacher education departments with representatives of business, industry, and labor.
2. To provide a training setting that will involve participants in activities that will answer their questions and help resolve problems concerning improved linkages with business, industry, and labor.
3. To introduce a series of resource handbook materials that are designed to assist vocational teacher education departments in improving their linkages with business, industry, and labor.
4. To provide opportunity for sharing ideas, and generating new ideas concerning the use of various techniques and programs for more effective involvement of business, industry, and labor.
5. To promote the development of vocational teacher education department and/or individual staff plans for the utilization of techniques or programs for more effective involvement of business, industry, and labor.

Project and Workshop Promotion

Information about the workshop was disseminated through Centergram, The Center's monthly newsletter, with articles in the August and March issues. The project activities and workshop activities were also advertised through project information sheets disseminated at national conferences and Center sponsored meetings; through a presentation at an Ohio regional conference of the National Association for Industry-Education Cooperation; and through the nationally distributed project survey instrument. A copy of the project information sheet is provided in Appendix G.

Selection of Training Workshop Participants

Invitations to participants were based on responses to the survey instrument question number 10. Question 10 described the date, place, and purpose of the training workshop. Financial responsibilities were described and respondents were asked to indicate their interest in attending the workshop.

EPDA project guidelines indicated that conference participants not receive reimbursement for travel; the project was able to reimburse one day per diem expenses to participants. Lack of reimbursement for travel tended to be a problem for some participants who indicated an interest in attending the conference but also indicated a lack of monies for out of state travel on a very limited travel budget. Of survey respondents, 21% of those indicating interest in the conference also indicated travel constraints because of lack of adequate department funding.

Invitations to the April 18 and 19 training workshop were mailed to 193 individuals representing all ten USOE regions. A copy of the invitation to the workshop is provided in Appendix H. Invitations were based on positive responses to question number ten in the survey; a representation from all USOE regions proportionately based on survey returns; and a representation from all vocational education service areas.

Selection of Workshop Resource Persons

A tentative agenda for the workshop was developed by the project staff. Based on the project literature review and other project activities and correspondence, a tentative list of resource persons was developed.

Criteria for selecting potential resource persons included:

- The ability to contribute to specific parts of the workshop agenda;
- Representation from business, industry, and labor as well as representation from vocational teacher education;
- Representation from a variety of alternative business, industry, labor and education interaction activities; and
- Representation from a variety of USOE regions.

Project staff contacted candidates to determine their availability and interest in participating in the workshop, followed by a mailing of workshop materials. Resource persons chosen for the workshop included representation from:

- Vocational teacher education;
- Business;
- Labor;
- A state education agency;
- A vocational education state department;
- An industry-education-labor council; and
- A national industry-education cooperation association.

The Training Workshop Program

The workshop agenda was developed to provide a flow of activities beginning with a definition of the problem, to active involvement by participants in discussing alternative approaches, to working on individual situations to a final wrap-up panel discussion. Activities consisted of a variety of approaches including panel discussions, and large group presentations. The workshop agenda is provided in Appendix I. The workshop edition of the handbook sessions were distributed to participants. Participants also received packets of materials with information brochures provided by various relevant associations.

Small group sessions focused on:

- "Developing a Plan for Departmental Business, Industry, Labor Involvement";
- "Involving Pre/In-Service Teachers in Business, Industry, Labor Experiences";
- "Involving Department Faculty in Business, Industry, Labor Experiences"; and
- "Establishing Effective Working Linkages with Business, Industry, and Labor".

Each small group session was assigned a moderator and resource persons. Directions for conducting the sessions and feedback from potential participants as to felt needs in the above area were given to the moderator and to the resource persons.

Evaluation of the Training Workshop

Workshop evaluation instruments were given to the participants with request for reimbursement papers. The workshop evaluation instrument is contained in Appendix J.

Responses to the question on how well workshop objectives were met ranged from extremely well to not at all. Responses to the workshop arrangements ranged from above average to excellent. Responses to the usefulness of the presentations ranged from average to very relevant. Responses to the effectiveness of the presentation techniques indicated participants considered the technique effective.

Review of Final Resource Handbook Sections

The development of this type of resource handbook series requires the input of fresh ideas and reactions in order to make the final product as useful as possible to vocational teacher educators. The project staff made plans to utilize input from the potential users of the product throughout the entire developmental process. Selected means used to secure inputs included in the survey instrument, literature review, the project information sheet and the review panel at the workshop. In order to continue this feedback, a reaction sheet and an envelope were enclosed inside the front cover of each workshop edition of each handbook section. A copy of the Resource Handbook feedback form is provided in Appendix K.

In addition to the solicited review from the workshop participants, an additional list of thirty persons was developed who had indicated an interest in project activities through unsolicited letters, through the survey instrument, and through personal contact. These persons were sent workshop copies of the handbook to review. An attempt was made to reach reviewers in USOE regions that were underrepresented at the workshop.

Based on reviewer feedback and on workshop participant feedback, the workshop edition of the handbook sections were refined and edited. The refined versions of the handbook are included as a self-contained addendum to this final report. An overview of the resource handbook sections is contained in Addendum Three.

Appendix

A. Project Planning Committee Members

B. Vocational Department Survey Instrument

C. Cover Letter to Department Chairpersons

D. Cover Letter to State EPDA Coordinators

E. Review Panel Participants

F. Training Workshop Participants

G. Project Information Sheet

H. Training Workshop Invitation

I. Training Workshop Agenda

J. Training Workshop Evaluation Forms

K. Resource Handbook Feedback Form

Planning Committee for "Improving
Business-Industry-Labor Inputs into
Personnel Development Programs"

EPDA Project OH-V-N-J

Planning Committee Members	Representing
Louis G. Mendez, Jr. Federal Coordinator for Industry Education Labor U.S. Office of Education Washington, DC 20202	USOE Central Office
Homer Edwards, Branch Chief Vocational Technical Education U.S. Office of Education 300 S. Wacker Drive, 32nd Floor Chicago, IL 60606	USOE Regional Office
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Jerome Moss, Chairman Vocational and Technical Education University of Minnesota 125 Peik Hall Minneapolis, MN 55455	Vocational Teacher Education
Albert Lorente, International Representative Skilled Trades Department United Auto Workers 8000 East Jefferson Detroit, MI 48214	Organized Labor
Robert G. Pecka Training Development Manager Western Electric Company 195 Broadway New York, NY 10007	Business/Industry
H.D. Chamberlain, Director Vocational Education The Eastland Vocational Center 4465 South Hamilton Road Groveport, OH 43125	Vocational Education

Appendix A. Project Planning Committee Members

No. ______

NATIONAL SURVEY OF VOCATIONAL TEACHER EDUCATION DEPARTMENT LINKAGES WITH BUSINESS, INDUSTRY, AND LABOR

DIRECTIONS: THIS SURVEY INSTRUMENT IS DESIGNED TO INDICATE THE EXTENT OF YOUR DEPARTMENT'S INVOLVEMENT WITH BUSINESS, INDUSTRY, AND LABOR.
PLEASE CHECK THE APPROPRIATE RESPONSE WHICH BEST EXPRESSES YOUR REACTION TO EACH OF THESE QUESTIONS AND PROVIDE ADDITIONAL WRITE-IN INFORMATION AS REQUESTED.

Name: ______________________ Title: ______________

Institution: ______________________________________

Department: ______________________ Telephone:( )__________

INDICATE THE TEACHER EDUCATION AREAS INCLUDED IN YOUR DEPARTMENT:

a. Agricultural Education ☐
b. Distributive Education ☐
c. Health Education ☐
d. Home Economics Education ☐
e. Business and Office Education ☐
f. Technical Education ☐
g. Trade and Industrial Education ☐
h. Industrial Arts Education ☐
i. Other ______________ ☐

--●--

1. To what extent has your department developed and/or used inputs from business, industry, and labor in its preservice and inservice vocational teacher education programs?

	Preservice			Inservice		
	Little	Some	Frequent	Little	Some	Frequent
a. Business/Industry	☐	☐	☐	☐	☐	☐
b. Organized Labor	☐	☐	☐	☐	☐	☐

Appendix B. Vocational Department Survey Instrument

2. Below is a list of methods or techniques that may be used to involve business, industry, and labor resources in support of vocational teacher education programs. Indicate the value of these activities to your department.

Under the left-hand column indicate the value of these activities already used by your department. In the right-hand column rate the potential of the other activities your department is not currently using.

	Estimated Value Based on Experience			Estimated Potential Value		
PROGRAM OPERATION	Little	Some	Great	Little	Some	Great
a. Advisory committees	☐	☐	☐	☐	☐	☐
b. Informal/ad hoc committees	☐	☐	☐	☐	☐	☐
c. Cooperative programs	☐	☐	☐	☐	☐	☐
d. Personnel exchange programs	☐	☐	☐	☐	☐	☐
e. Field trips	☐	☐	☐	☐	☐	☐
f. Workshops	☐	☐	☐	☐	☐	☐
g. Other ____________	☐	☐	☐	☐	☐	☐
PROGRAM SUPPORT						
h. Grants/scholarships/awards	☐	☐	☐	☐	☐	☐
i. Student recrutment	☐	☐	☐	☐	☐	☐
j. Donation/loan of equipment	☐	☐	☐	☐	☐	☐
k. Loan/sharing of facilities	☐	☐	☐	☐	☐	☐
l. Donation of material/software	☐	☐	☐	☐	☐	☐
m. Other ____________	☐	☐	☐	☐	☐	☐
PROGRAM DEVELOPMENT						
n. Program goal development	☐	☐	☐	☐	☐	☐
o. Curriculum development	☐	☐	☐	☐	☐	☐
p. Occupational analysis	☐	☐	☐	☐	☐	☐
q. Program evaluation	☐	☐	☐	☐	☐	☐
r. Program revision	☐	☐	☐	☐	☐	☐
s. Certification requirements	☐	☐	☐	☐	☐	☐
t. Other ____________	☐	☐	☐	☐	☐	☐

Appendix B. Continued

3. Describe below any significant changes that have occurred in your current program as a result of using inputs from business, industry, and labor.

____

____

____

____

4. What types of specific problems have you encountered in your efforts to establish department linkages to utilize inputs from business, industry, and labor? (i.e. obtaining administrative clearance for instructor leave)

____

____

____

____

5. Name three vocational teacher education departments, at your institution or other institutions, that are effectively utilizing inputs from business, industry, and labor.

	Department	Institution/State
a.		
b.		
c.		

6. Indicate your department's need for a training resource package to assist in developing and using inputs from business, industry and labor in vocational teacher education.

No need ☐ Some need ☐ Strong need ☐

7. What types of information would you find most useful in a training resource package designed to assist vocational teacher education departments to maximize use of business, industry, and labor inputs? (i.e. procedures for using advisory committees)

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____

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Appendix B. Continued

8. Identify various resource materials and references which have proven useful in obtaining and using business, industry, and labor inputs in your vocational teacher education program.

Resource/Reference	Source

9. Which person(s) on your staff are most involved or knowledgable about the involvement of business, industry, and labor in vocational teacher education programs?

____

____

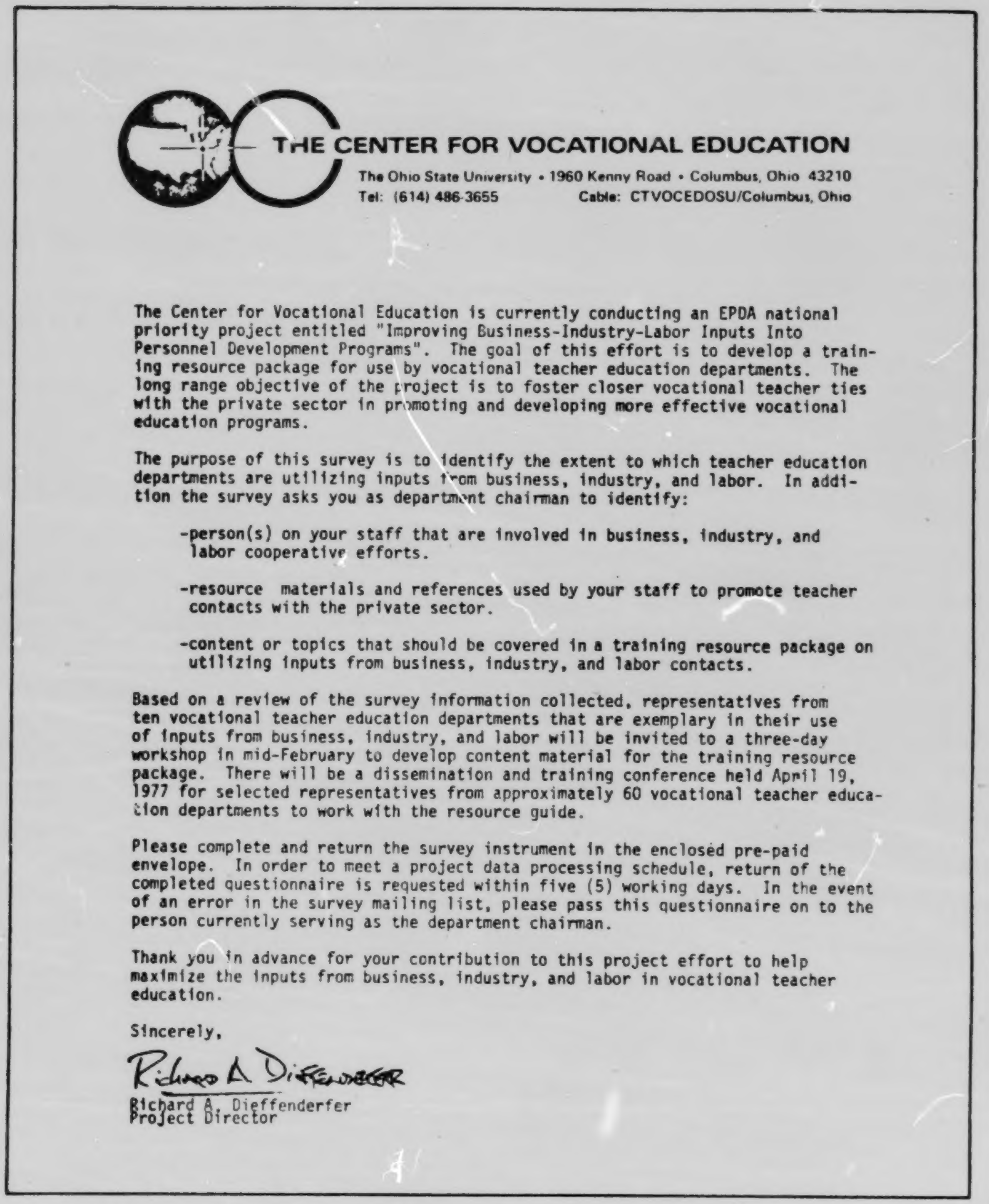
____

10. Upon completion of the training resource package for utilizing business, industry and labor inputs, a one-day conference will be held April 19, 1977 at the Center for Vocational Education, Columbus, Ohio for approximately 60 vocational teacher educators.
Conference participants will receive a copy of the training resource package and instruction in its use. These participants will need to provide for their own travel and lodging expenses.
Indicate your interest at this time in having a department representative attend this conference.

Interested ☐ Not interested ☐

PLEASE USE THE SPACE BELOW FOR COMMENTS OR FOR PROVIDING ADDITIONAL INFORMATION.

Appendix B. Continued



THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University • 1960 Kenny Road • Columbus, Ohio 43210
Tel: (614) 486-3655 Cable: CTVOCEDOSU/Columbus, Ohio

The Center for Vocational Education is currently conducting an EPDA national priority project entitled "Improving Business-Industry-Labor Inputs Into Personnel Development Programs". The goal of this effort is to develop a training resource package for use by vocational teacher education departments. The long range objective of the project is to foster closer vocational teacher ties with the private sector in promoting and developing more effective vocational education programs.

The purpose of this survey is to identify the extent to which teacher education departments are utilizing inputs from business, industry, and labor. In addition the survey asks you as department chairman to identify:

-person(s) on your staff that are involved in business, industry, and labor cooperative efforts.

-resource materials and references used by your staff to promote teacher contacts with the private sector.

-content or topics that should be covered in a training resource package on utilizing inputs from business, industry, and labor contacts.

Based on a review of the survey information collected, representatives from ten vocational teacher education departments that are exemplary in their use of inputs from business, industry, and labor will be invited to a three-day workshop in mid-February to develop content material for the training resource package. There will be a dissemination and training conference held April 19, 1977 for selected representatives from approximately 60 vocational teacher education departments to work with the resource guide.

Please complete and return the survey instrument in the enclosed pre-paid envelope. In order to meet a project data processing schedule, return of the completed questionnaire is requested within five (5) working days. In the event of an error in the survey mailing list, please pass this questionnaire on to the person currently serving as the department chairman.

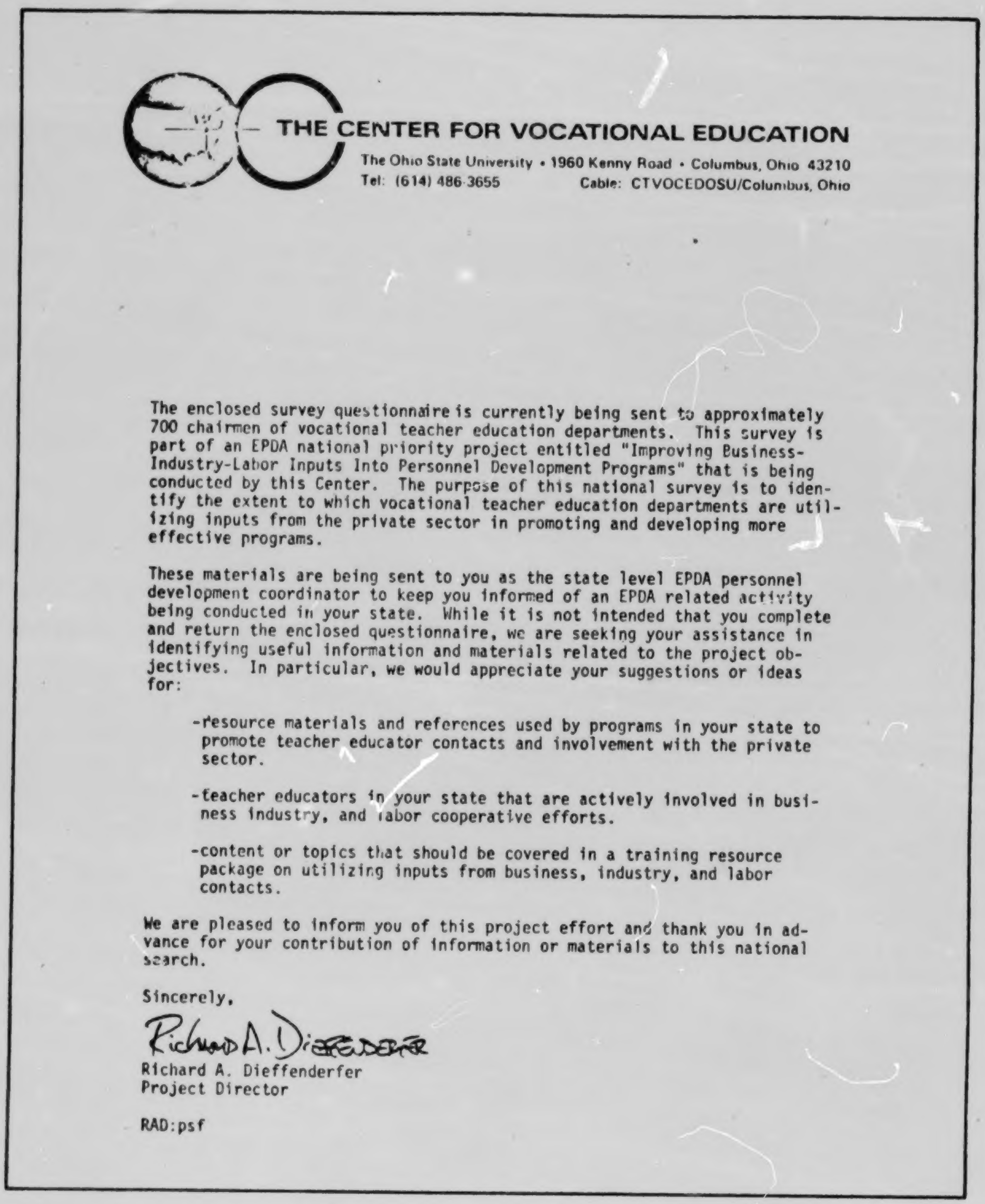
Thank you in advance for your contribution to this project effort to help maximize the inputs from business, industry, and labor in vocational teacher education.

Sincerely,

Richard A. Dieffenderfer

Richard A. Dieffenderfer
Project Director

Appendix C. Cover Letter to Department Chairpersons



THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University • 1960 Kenny Road • Columbus, Ohio 43210
Tel: (614) 486-3655 Cable: CTVOCEDOSU/Columbus, Ohio

The enclosed survey questionnaire is currently being sent to approximately 700 chairmen of vocational teacher education departments. This survey is part of an EPDA national priority project entitled "Improving Business-Industry-Labor Inputs Into Personnel Development Programs" that is being conducted by this Center. The purpose of this national survey is to identify the extent to which vocational teacher education departments are utilizing inputs from the private sector in promoting and developing more effective programs.

These materials are being sent to you as the state level EPDA personnel development coordinator to keep you informed of an EPDA related activity being conducted in your state. While it is not intended that you complete and return the enclosed questionnaire, we are seeking your assistance in identifying useful information and materials related to the project objectives. In particular, we would appreciate your suggestions or ideas for:

- resource materials and references used by programs in your state to promote teacher educator contacts and involvement with the private sector.
- teacher educators in your state that are actively involved in business industry, and labor cooperative efforts.
- content or topics that should be covered in a training resource package on utilizing inputs from business, industry, and labor contacts.

We are pleased to inform you of this project effort and thank you in advance for your contribution of information or materials to this national search.

Sincerely,

Richard A. Dieffenderfer

Richard A. Dieffenderfer
Project Director

RAD:psf

Appendix D. Cover Letter to State EPDA Coordinators

RESOURCE HANDBOOK REVIEW PANEL

A national panel of vocational teacher educators with a background of successful experiences in utilizing business, industry, and labor information resources in their staff development and teacher education efforts was brought together to review draft versions of the Resource Handbook. The Review Panel's practical experience and knowledge of potential problems faced by vocational teacher education departments when utilizing business, industry, and labor resource information contributed significantly to the usefulness of the Resource Handbook. Vocational Teacher Education Representatives serving on the Review Panel included:

Annelle Bonner
Business Education Department
University of Southern Mississippi
Hattiesburg, Mississippi 39401

Larry Drake
Industrial Education Department
Southwest Missouri State University
Springfield, Missouri 65802

Bill Garber
Department of Business Education
Central Missouri State University
Warrensburg, Missouri 64093

Edward M. Hughes
Secondary Education Department
Lehigh University
Bethlehem, PA 18015

Richard L. Kelly
Business Education and Office
Administration Department
Ball State University
Muncie, Indiana 47306

Gilbert A. Long
Agricultural Education Department
Utah State University
Logan, Utah 84322

Richard Lee Lynch
Division of Vocational and Technical
Education
College of Education
Virginia Polytechnic Institute and
State University
Blacksburg, Virginia 24061

Jack McElroy

Dept. of Trade and Industrial Education
University of Kentucky
Lexington, Kentucky 40506

Bill D. Syhlman
School of Business Administration
Eastern Washington State College
Cheney, Washington 99004

Lucille E. Wright
College of Education
Cleveland State University
Cleveland, Ohio 44115

Appendix E. Review Panel Participants

Participant List

April 18 & 19, 1977

Dewey Adams
Professor and Chairperson
Comprehensive Advanced Graduate
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Minority Affairs
Director, Seminar-Workshop
on I-E-L Cooperation
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Appendix F. Training Workshop Participants

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Appendix F. Continued

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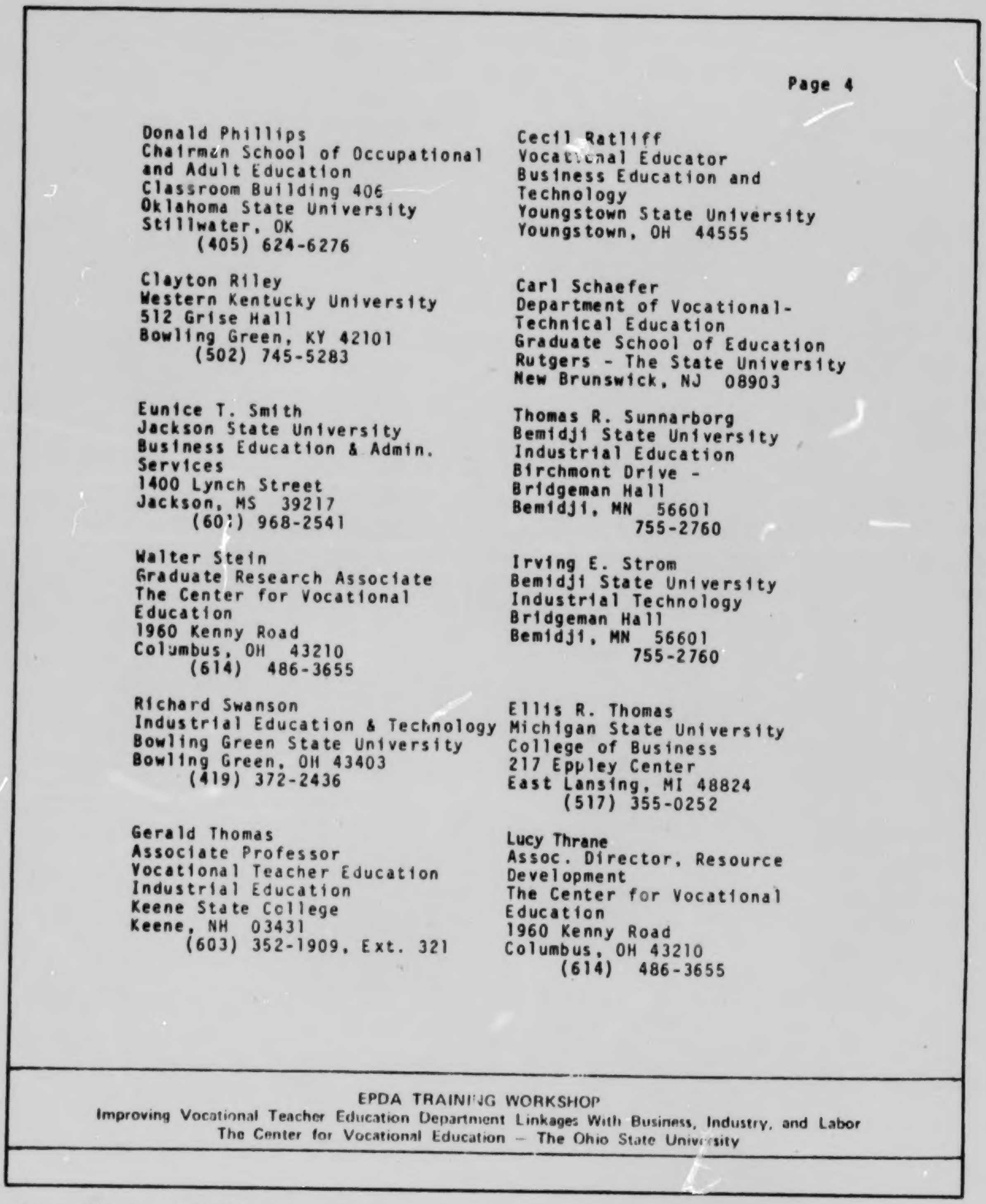
Appendix F. Continued



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Appendix F. Continued

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Knoxville, TN 37919
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Appendix F. Continued

THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University • 1960 Kenny Road • Columbus, Ohio 43210
Tel: (614) 486 3655 Cable: CTVOCEDOSU/Columbus, Ohio

Vocational Teacher Education Department Linkages With Business, Industry, and Labor

The EPDA, Part F national priority project "Improving Business-Industry-Labor Inputs into Personnel Development Programs" is being conducted at the Center for Vocational Education, from July 1976 to June 1977. The goal of this effort is to develop a training resource package for use by vocational teacher education departments. The long range objective of the project is to foster closer vocational teacher ties with the private sector in promoting and developing more effective vocational educational programs.

Project activities include:

.A mail survey of vocational teacher education departments to determine the extent to which each department has developed business-industry-labor inputs into its personnel development programs.

.A three-day workshop at CVE on February 14-16, 1977, for the purpose of developing a generalizable training resource guide to show how business-industry-labor inputs into vocational education personnel development programs can be improved. Workshop participants will include ten persons selected from vocational teacher education departments that have demonstrated expertise in this area.

.A one day dissemination and training conference at CVE on April 19, 1977, for approximately 60 selected vocational teacher educators and administrators and representatives from business, industry and labor to work with the resource guide.

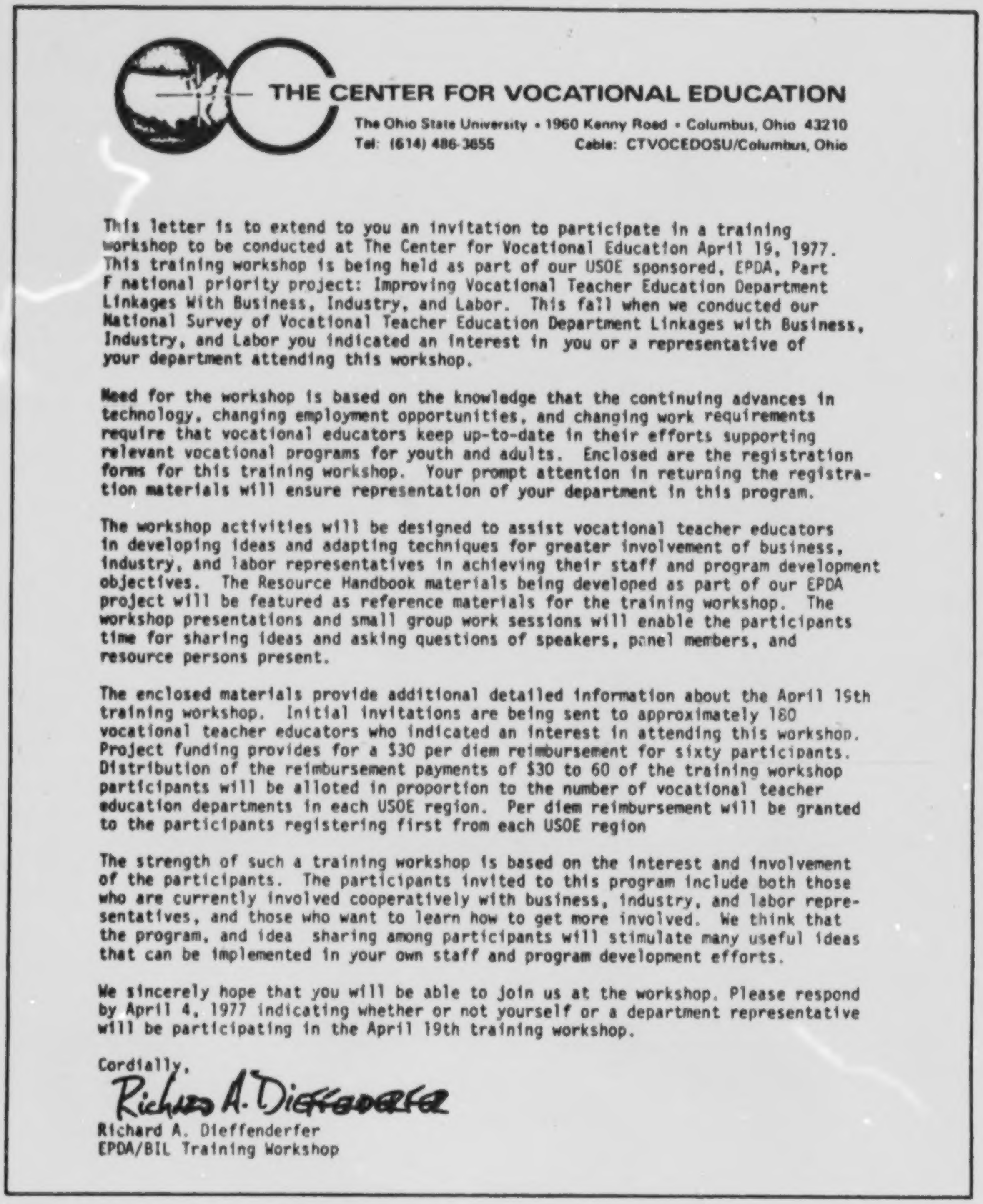
Planning committee members for the project include: H.D. Chamberlain, Eastland Vocational Center. Groveport,OH; Homer Edwards, USOE, Chicago, IL; Albert Lorente, United Auto Workers, Detroit, MI; Louis Mendez, Jr., USOE, Washington, D.C.; Jerome Moss, University of Minnesota, Minneapolis, MN; Darrell Parks, Ohio Division of Vocational Education, Columbus, OH; and Robert Pecka, Western Electric Company, New York, NY.

We are seeking your assistance in identifying useful information and materials related to project objectives. If you are able to help us or if you wish additional information about the project, please contact:

Dick Dieffenderfer
Project Director

11/76

Appendix G. Project Information Sheet



THE CENTER FOR VOCATIONAL EDUCATION
The Ohio State University • 1960 Kenny Road • Columbus, Ohio 43210
Tel: (614) 486-3655 Cable: CTVOCEDOSU/Columbus, Ohio

This letter is to extend to you an invitation to participate in a training workshop to be conducted at The Center for Vocational Education April 19, 1977. This training workshop is being held as part of our USOE sponsored, EPDA, Part F national priority project: Improving Vocational Teacher Education Department Linkages With Business, Industry, and Labor. This fall when we conducted our National Survey of Vocational Teacher Education Department Linkages with Business, Industry, and Labor you indicated an interest in you or a representative of your department attending this workshop.

Need for the workshop is based on the knowledge that the continuing advances in technology, changing employment opportunities, and changing work requirements require that vocational educators keep up-to-date in their efforts supporting relevant vocational programs for youth and adults. Enclosed are the registration forms for this training workshop. Your prompt attention in returning the registration materials will ensure representation of your department in this program.

The workshop activities will be designed to assist vocational teacher educators in developing ideas and adapting techniques for greater involvement of business, industry, and labor representatives in achieving their staff and program development objectives. The Resource Handbook materials being developed as part of our EPDA project will be featured as reference materials for the training workshop. The workshop presentations and small group work sessions will enable the participants time for sharing ideas and asking questions of speakers, panel members, and resource persons present.

The enclosed materials provide additional detailed information about the April 19th training workshop. Initial invitations are being sent to approximately 180 vocational teacher educators who indicated an interest in attending this workshop. Project funding provides for a $30 per diem reimbursement for sixty participants. Distribution of the reimbursement payments of $30 to 60 of the training workshop participants will be alloted in proportion to the number of vocational teacher education departments in each USOE region. Per diem reimbursement will be granted to the participants registering first from each USOE region

The strength of such a training workshop is based on the interest and involvement of the participants. The participants invited to this program include both those who are currently involved cooperatively with business, industry, and labor representatives, and those who want to learn how to get more involved. We think that the program, and idea sharing among participants will stimulate many useful ideas that can be implemented in your own staff and program development efforts.

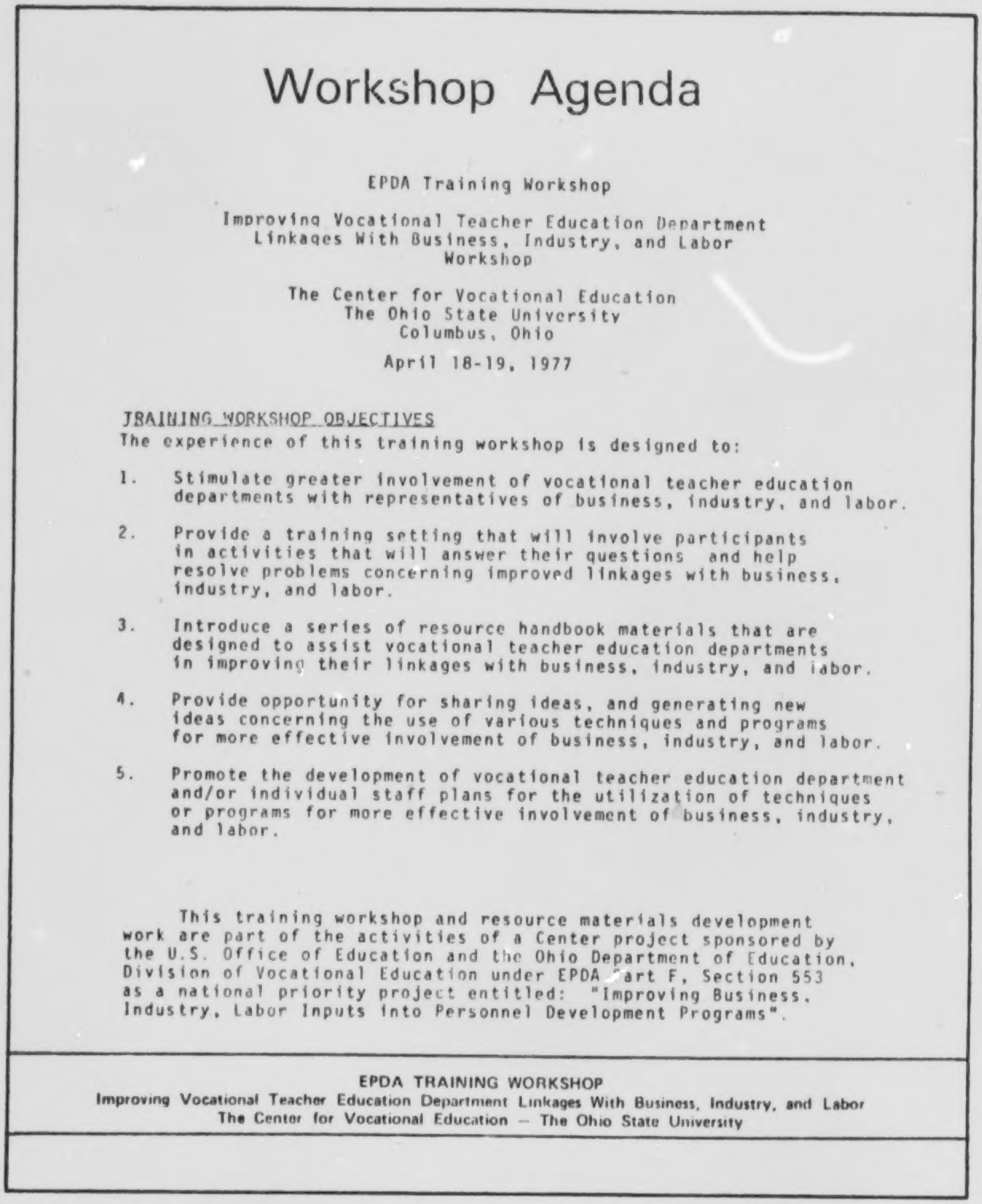
We sincerely hope that you will be able to join us at the workshop. Please respond by April 4, 1977 indicating whether or not yourself or a department representative will be participating in the April 19th training workshop.

Cordially,

Richard A. Dieffenderfer

Richard A. Dieffenderfer
EPDA/BIL Training Workshop

Appendix H. Training Workshop Invitation



Workshop Agenda

EPDA Training Workshop

Improving Vocational Teacher Education Department
Linkages With Business, Industry, and Labor
Workshop

The Center for Vocational Education
The Ohio State University
Columbus, Ohio

April 18-19, 1977

TRAINING WORKSHOP OBJECTIVES

The experience of this training workshop is designed to:

1. Stimulate greater involvement of vocational teacher education departments with representatives of business, industry, and labor.
2. Provide a training setting that will involve participants in activities that will answer their questions and help resolve problems concerning improved linkages with business, industry, and labor.
3. Introduce a series of resource handbook materials that are designed to assist vocational teacher education departments in improving their linkages with business, industry, and labor.
4. Provide opportunity for sharing ideas, and generating new ideas concerning the use of various techniques and programs for more effective involvement of business, industry, and labor.
5. Promote the development of vocational teacher education department and/or individual staff plans for the utilization of techniques or programs for more effective involvement of business, industry, and labor.

This training workshop and resource materials development work are part of the activities of a Center project sponsored by the U.S. Office of Education and the Ohio Department of Education, Division of Vocational Education under EPDA Part F, Section 553 as a national priority project entitled: "Improving Business, Industry, Labor Inputs into Personnel Development Programs".

EPDA TRAINING WORKSHOP
Improving Vocational Teacher Education Department Linkages With Business, Industry, and Labor
The Center for Vocational Education – The Ohio State University

Appendix I. Training Workshop Agenda

Page 2

Monday Evening Program

Holiday Inn
Sheridan Room
April 18, 1977

6:30 PM WORKSHOP REGISTRATION and Get Acquainted Time

7:00-9:00 PM GENERAL SESSION
"Workshop Overview and Procedures"
Dick Dieffenderfer
Project Director
The Center for Vocational Education

Panel Discussion:
"The Missing Link: The business, industry, labor perspective on the problem"
Moderator: Lee Kopp
The Center for Vocational Education

Panelists

Albert Lorente
United Auto Workers

Herbert Chamberlain
Eastland Vocational Center

Paul Musgrove
Illinois Industry-Education Council

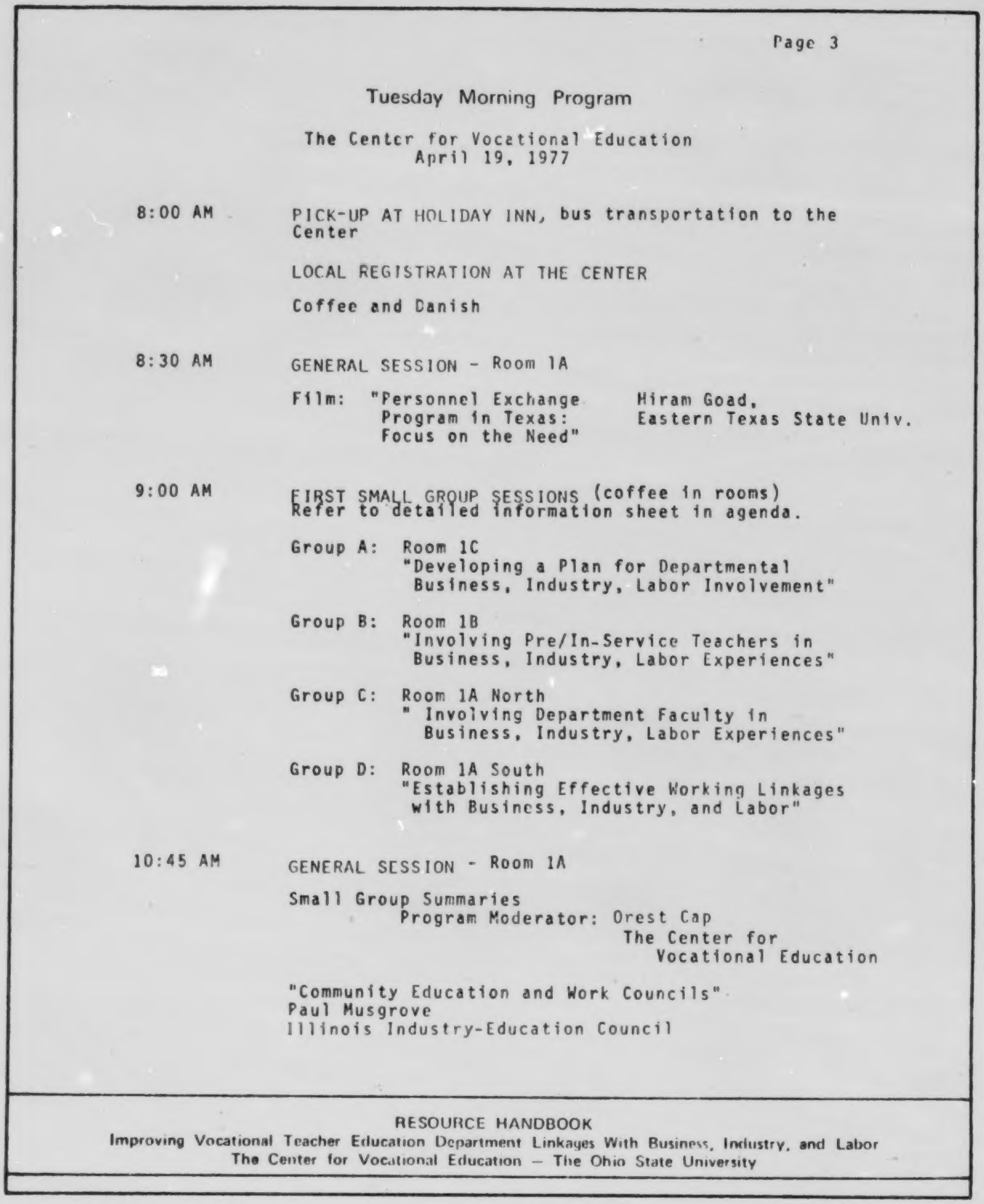
Ray Wasil
Ohio Industry-Education-Labor Coordinator, NAIEC Ohio Coordinator

Darrell Parks
Ohio Department of Vocational Education; EPDA Coordinator

Tommorrow's workshop session will be conducted at The Center for Vocational Education, 1960 Kenny Road. The bus for the Center will leave the Holiday Inn at 8:00 and 8:15 A.M. Remember to check out and bring your luggage with you. Due to limited Visitor parking space at the Center, we prefer that you park your car at the Holiday Inn.

EPDA TRAINING WORKSHOP
Improving Vocational Teacher Education Department Linkages With Business, Industry, and Labor
The Center for Vocational Education – The Ohio State University

Appendix I. Continued



Tuesday Morning Program

The Center for Vocational Education
April 19, 1977

8:00 AM PICK-UP AT HOLIDAY INN, bus transportation to the Center

LOCAL REGISTRATION AT THE CENTER

Coffee and Danish

8:30 AM GENERAL SESSION - Room 1A

Film: "Personnel Exchange Program in Texas: Focus on the Need"
Hiram Goad,
Eastern Texas State Univ.

9:00 AM FIRST SMALL GROUP SESSIONS (coffee in rooms)
Refer to detailed information sheet in agenda.

Group A: Room 1C
"Developing a Plan for Departmental Business, Industry, Labor Involvement"

Group B: Room 1B
"Involving Pre/In-Service Teachers in Business, Industry, Labor Experiences"

Group C: Room 1A North
" Involving Department Faculty in Business, Industry, Labor Experiences"

Group D: Room 1A South
"Establishing Effective Working Linkages with Business, Industry, and Labor"

10:45 AM GENERAL SESSION - Room 1A

Small Group Summaries
Program Moderator: Orest Cap
The Center for
Vocational Education

"Community Education and Work Councils"
Paul Musgrove
Illinois Industry-Education Council

Appendix I. Continued

Page 4

11:30 AM BUFFET LUNCH - Room 1A

Program: "Human Resources Development in the World of Work"
Robert Craig, Director of Communications
American Society for Training and Development

Tuesday Afternoon Program

April 19, 1977

1:00 PM SECOND SMALL GROUP SESSIONS

Group A: Room 1C
"Developing a Plan for Departmental Business, Industry, Labor Involvement"

Group B: Room 1B
"Involving Pre/In Service Teachers in Business, Industry, Labor Experiences"

Group C: Room 1A north
"Involving Department Faculty in Business, Industry, Labor Experiences"

Group D: Room 1A south
"Establishing Effective Working Linkages with Business, Industry, and Labor"

2:40 PM GENERAL SESSION - Room 1A

Small Group Summaries
Moderator: Lee Kopp,
The Center for Vocational Education

Panel Discussion: "Expanding Dialogue with Business, Industry, Labor"
Moderator: Dick Dieffenderfer,
The Center for Vocational Education

Appendix I. Continued

Panelists

Albert Lorente
United Auto Workers

Paul Musgrove
Illinois Industry-Education Council

Robert Craig
American Society for Training and Development

Ray Wasil
Ohio Industry-Education-Labor Coordinator, NAIEC Ohio Coordinator

Darrell Parks
Ohio Department of Vocational Education, EPDA Coordinator

Dick Cornell
Acceleration Life Insurance Co.

4:00 PM Adjourn: Those who have early flights will leave for the airport. Others are welcome to remain and continue discussion or tour The Center:

- Career Education
- Competency Based Career Education
- Comprehensive Vocational Education Program
- Center Library
- Rural Career Guidance

The first bus will leave The Center at 4:00 and the second trip will leave The Center at 5:00.

Van service will be available back to Holiday Inn for those who left their cars there.

NOTE: BE SURE TO RETURN YOUR EVALUATION FORM

Appendix I. Continued

Small Group Session Details

GROUP A: Conference Room 1-C

"Developing a Plan for Departmental Business, Industry, Labor Involvement"

Moderator: A. J. Miller
Ohio State University

Resource Persons:

Dewey Adams
Ohio State University

Lucy Thrane
The Center for Vocational Education

Carl Schaefer
Rutgers University

Resource Handbook Materials:

#1 Staff Development
Creating a Staff Development Plan for Business, Industry, Labor Involvement

#8 Program Support:
Securing Program Support for Business, Industry, Labor Involvement (In press, to be mailed out)

Appendix I. Continued

GROUP B: Conference Room 1-B

"Involving Pre/In-Service Teachers in Business, Industry, Labor Experiences"

Moderator: Walter Stein
Northern Michigan University

Resource Persons.

William Garber
Central Missouri State University

Odel Miller
Ohio State University

Herb Chamberlain
Eastland Vocational Center

Resource Handbook Materials:

#3 Cooperative Internships:
Establishing Cooperative Internship Programs Involving Business, Industry, Labor.

#6 Site Visits:
Conducting Business, Industry, Labor Site Visits.

Appendix I. Continued

GROUP C: Conference Room 1A North

"Involving Department Faculty in Business, Industry, Labor Experiences"

Moderator: Charles Weaver
The Center for Vocational Education

Resource Persons:

Annelle Bonner
University of Southern Mississippi

Jack McElroy
University of Kentucky

Richard Swanson
Bowling Green State University

Resource Handbook Materials:

#4 Personnel Exchange Programs:
Establishing Personnel Exchange Programs Involving Business, Industry, Labor.

#5 Workshops:
Involving Business, Industry, Labor Through Workshop Programs.

Appendix I. Continued

GROUP D: Conference Room 1A South

"Establishing Effective Working Linkages With Business, Industry, and Labor"

Moderator: Allen B. Moore
The Center for Vocational
Education

Resource Persons:

Richard Kelly
Ball State University

James Barber
Southern Conneticut
State College

Hiram Goad
East Texas State University

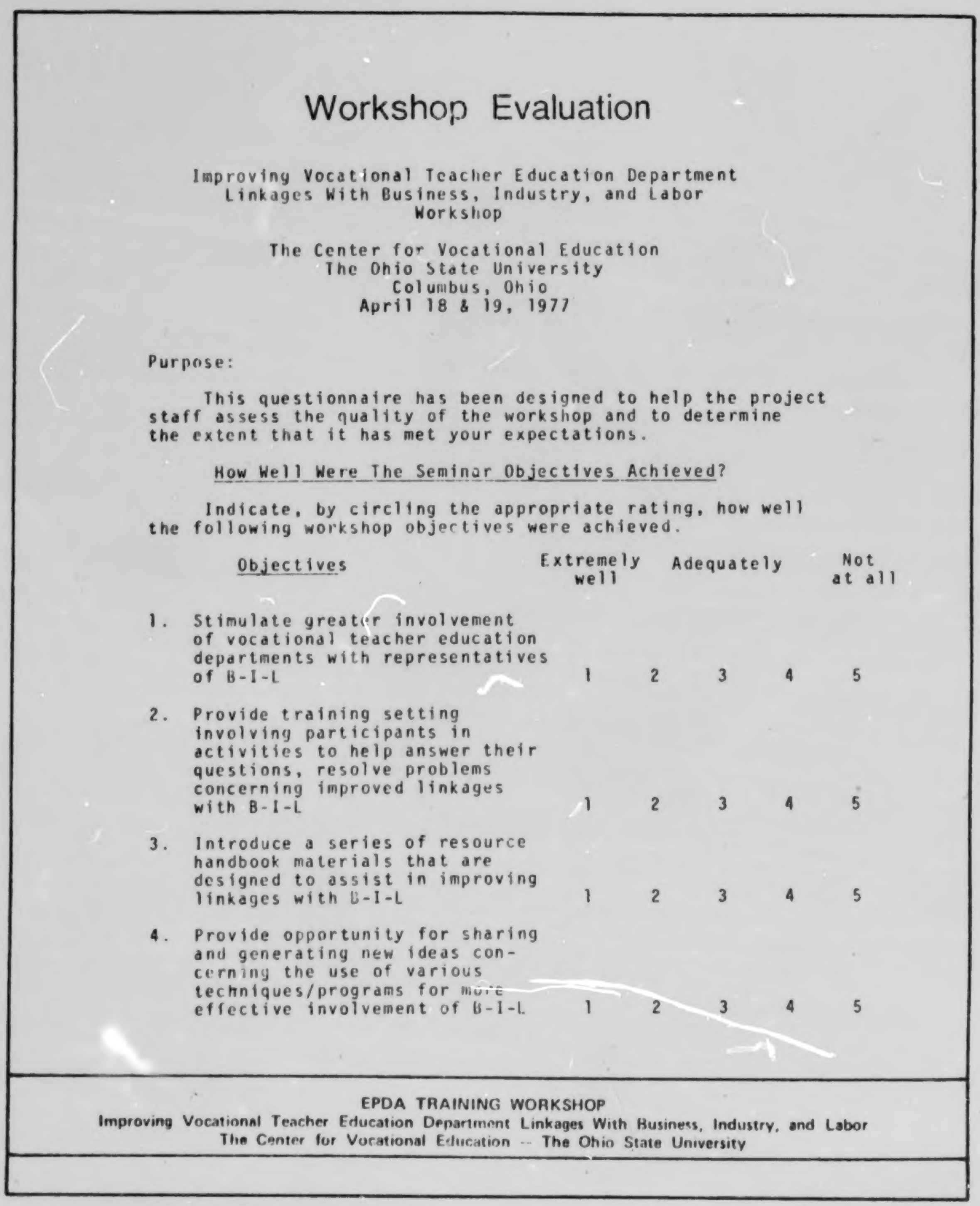
Lucile Wright
Cleveland State University

Resource Handbook Materials:

#2 Advisory Committees:
Utilizing Business, Industry, Labor Advisory Committees.

#7 Resource Persons:
Involving Resource Persons From Business, Industry, Labor.

Appendix I. Continued



Workshop Evaluation

Improving Vocational Teacher Education Department
Linkages With Business, Industry, and Labor
Workshop

The Center for Vocational Education
The Ohio State University
Columbus, Ohio
April 18 & 19, 1977

Purpose:

This questionnaire has been designed to help the project staff assess the quality of the workshop and to determine the extent that it has met your expectations.

How Well Were The Seminar Objectives Achieved?

Indicate, by circling the appropriate rating, how well the following workshop objectives were achieved.

Objectives	Extremely well		Adequately		Not at all
1. Stimulate greater involvement of vocational teacher education departments with representatives of B-I-L	1	2	3	4	5
2. Provide training setting involving participants in activities to help answer their questions, resolve problems concerning improved linkages with B-I-L	1	2	3	4	5
3. Introduce a series of resource handbook materials that are designed to assist in improving linkages with B-I-L	1	2	3	4	5
4. Provide opportunity for sharing and generating new ideas concerning the use of various techniques/programs for more effective involvement of B-I-L	1	2	3	4	5

EPDA TRAINING WORKSHOP
Improving Vocational Teacher Education Department Linkages With Business, Industry, and Labor
The Center for Vocational Education -- The Ohio State University

Appendix J. Training Workshop Evaluation Forms

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		Extremely well		Adequately		Not at all
Objectives Cont.						
5.	Promote the development of plans for the utilization of techniques or programs for more effective involvement of B-I-L	1	2	3	4	5

What Did You Think Of The Seminar Arrangements?

		Excellent		Average		Poor
1.	Pre-session information	1	2	3	4	5
2.	Registration procedures	1	2	3	4	5
3.	Meeting rooms	1	2	3	4	5
4.	Overall organization	1	2	3	4	5
5.	Opportunity for professional interchange	1	2	3	4	5
6.	Motel accommodations	1	2	3	4	5

How Useful Were The Seminar Presentations To You?

		Very Relevant				Not Relevant
1.	The Missing Link: The business, industry labor perspective on the problem.(panel discussion)	1	2	3	4	5
2.	Developing a plan for departmental business, industry, labor involvement. (small group)	1	2	3	4	5
3.	Involving Pre/In-service Teachers in business, industry, labor experiences. (small group)	1	2	3	4	5
4.	Involving department faculty in business, industry, labor experiences. (small group)	1	2	3	4	5
5.	Establishing effective working linkages with business, industry and labor. (small group)	1	2	3	4	5

EPDA TRAINING WORKSHOP
Improving Vocational Teacher Education Department Linkages With Business, Industry, and Labor
The Center for Vocational Education — The Ohio State University

Appendix J. Continued

Page 3

	Very Relevant				Not Relevant
6. Expanding Dialogue with Business, Industry, and Labor. (panel discussion)	1	2	3	4	5
7. Personnel Exchange Program in Texas. (movie)	1	2	3	4	5
8. Community-Education and Work Councils. (speaker)	1	2	3	4	5
9. Human Resource Development in the World of Work (speaker)	1	2	3	4	5

How Effective Were the Seminar Presentation Techniques?

	Yes	No
1. Were you given enough time to ask questions ?	( )	( )
2. Were your questions answered satisfactorily?	( )	( )
3. Was there enough time allowed for group discussion?	( )	( )
4. Were the visual aids used effectively?	( )	( )
5. Was the information presented in an interesting manner?	( )	( )
6. Did the seminar leaders have their materials and program well organized?	( )	( )

What Comments Do You Have?

1. How do you plan to use the materials (handbook) ideas or strategies that were introduced at the workshop?

EPDA TRAINING WORKSHOP
Improving Vocational Teacher Education Department Linkages With Business, Industry, and Labor
The Center for Vocational Education — The Ohio State University

Appendix J. Continued

2. What problem areas did the workshop identify which you feel you can work on to improve?

3. What do you feel is the next step necessary to set up B-I-L linkages?

Return to:

EPDA/BIL Workshop
Personnel Development Division
The Center for Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

Telephone:

(614) 486-3655

Appendix J. Continued

Resource Handbook: Feedback

Dear Colleague:

You are doing some interesting things; you have ideas and suggestions; you have tried some unique approaches; you have some problems that are particular to your situation; and you can contribute to the improvement of these resource handbook sections. We are asking that you jot down your ideas and suggestions for improving linkages with business, industry, and labor. Your comments do not have to be restricted to these suggested topics or the use of this form.

Thank you for your contribution:

Orest Cap, Lee Kopp, Dick Dieffenderfer

1. Suggestions for Other Linkage Ideas or Approaches Not Identified:

2. Linkage Problems That Are Unique to Various Types/Size Vocational Teacher Education Departments That Should Be Described:

Over Please →

RESOURCE HANDBOOK
Improving Vocational Teacher Education Department Linkages With Business, Industry, and Labor
The Center for Vocational Education – The Ohio State University

Appendix K. Resource Handbook Feedback Form

3. Suggestions for Other References and Resource Material Examples:

4. Identification of Additional Planning Steps That Should Be Described:

5. Additional Comments:

Return to:

EPDA/BIL Resource Handbook
Personnel Development Division
The Center for Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

Telephone: (614) 486-3655

Appendix K. Continued

Addendum One

REVIEW OF CURRENT PRACTICES

Introduction

Professional Development: Challenge

Through the years many aspects of our highly technological society have been and still are in the process of fluctuation and change. As Toffler (1970) in Future Shock remarkably portrays, education has not been excluded from this process of change and modernization. Continuing advances in technology, fluctuating employment opportunities, and changing work requirements demand that all vocational education personnel have an up-to-date and sharp focus on providing relevant vocational preparation programs.

> Schools that become isolated from the rest of the community become isolated from the knowledge of what it takes for youth to participate in those other institutions, from how employing establishments view the developed abilities provided by the schools, from the resources throughout a community for enriching and extending the educational process, and from the reserve of good will, potentially existing for furthering educators' objectives...(Wirtz, 1977, p. 1).

We need to be aware that adequate preparation of vocational teachers is of vital importance in the continued delivery of quality education vocational programs. Walter Tice (1976), Chairman of the National Advisory Council of Education Professions Development, states in the letter of transmittal for National Issues in Education Professions Development the following view:

> While a strong emphasis in the legislation was improvement in the quality of teacher education...new and old teachers alike are not adequately prepared for the changes that society, technology, and the mandates of the courts have brought to the classroom.

Tice further believes that appropriate action should be taken to meet:

> the critical need for more adequate substantive training for the nation's teachers. Without this, the quality of all education is itself in danger, and a disaster from which the Nation will not soon rise lies before us.

Quinlan (1976), a consultant, in discussing professional competence, believed that there is a need for continuing education, or, as it is commonly called, professional development. One of the reasons she holds this view is that there is a need to protect the public from the professional who has not maintained his competence.

Further supporting this view, Schaefer and Ward (1972) point out that

> ...no state has yet found a way to reflect the prestige of the professional updating needed to eliminate once and for all obsolescence on the part of educators. In contrast to business and industry, where personnel is singled out for development programs, the education profession leaves the process of in-service education, the up-dating of an individual to one's own motivation and limited resources (p. x).

Keeping up-to-date with new technologies, management techniques, and training techniques is a concern of business, industry, labor and education groups.

Professional Development: Cooperation

Vocational education in our country can never be better than the quality of our vocational education personnel. To improve that quality and thereby maximize our contributions to society, a partnership and continuous interaction between universities, business, industry and labor is needed.

Since the inception of federal support for vocational education in 1917 with the Smith-Hughes Act, various efforts have been made to increase interaction between business, industry, labor, and the education sector to provide relevant occupational preparation programs. Recently, the Vocational Education Amendments in 1968 placed even greater attention on vocational staff development and at the same time required a closer relationship between vocational education, industry, business, and labor. Provisions of the Education Professions Development Act, as described under the Vocational Education Amendments of 1968, Part F, Section 553(b) provided grants under this section for projects and activities, such as:

> (1) exchange of vocational education teachers and other staff members with skilled technicians or supervisors in industry...and the development and operation of cooperative programs involving periods of teaching in schools providing vocational education and of experience in commercial, industrial, or other public or private employment...;

(2) inservice training programs for vocational education teachers and other staff members to improve the quality of instruction, supervision, and administration of vocational education programs; and,

(3) short-term or regular-session institutes, or other preservice and in-service training programs or projects designed to improve the qualifications of persons entering and reentering the field of vocational education....

In addition, the Education Professions Development Act (EPDA) provided funds to augment existing professional development programs, with special emphasis on satisfying the needs of the '68 amendments and those needs created by expanded interest in vocational education programs throughout the nation.

Burt (1967a) strongly believed that an industry-education alliance is a must, for if in our technological times

> ...industry and education ignore each other or fail actively to cooperate; the inevitable result is institutions turning out unqualified workers and industry suffering skilled manpower shortages (p. 42).

President Gerald R. Ford, in his August 1974 Commencement Address at The Ohio State University, stressed this closer cooperation by calling for harmonization of skills and intellect and by proclaiming a new emphasis for industry-education cooperation. Ford stated:

> I propose a great new partnership of labor and educators. Why can't the universities of America open their doors wide to working men and women, not only as students, but as teachers? Practical problem-solvers can contribute much to education, whether or not they hold degrees (p. 8).

In addition, he stated:

> ...show us how universities can work with industry and labor unions to devise a whole new community of learning across this great land. Show us how work-study programs can become a part of the ongoing educational process (p. 9).

Argars (1964), in a study of 248 companies involved in public education over a decade ago, similarly expressed belief that a closer cooperation with business and industry can bring satisfying results to all concerned:

> In a day when knowledge is increasing at an alarming rate, many companies assume responsibility for helping teachers and college professors to keep up-to-date professionally, expand their knowledge and improve their skills. The kinds of programs offered indicate that business

and industry view better prepared teachers and improved instruction as one important key to better schools.

Leaders, therefore, in the institution of higher learning and in the work places as well, need to recognize the mutually beneficial results of active business, industry, and labor education cooperation.

Constraints

Connors (1972a), past president of the American Society for Training and Development, emphasized the fact that after many years of lip service to the task of developing a closer business, industry, and vocational education alliance, neither side seems to have found a way to break the communication barriers which prevent effective mutual assistance.

Presently, although there are a multitude of common partnerships with business, industry, and labor, there are also a number of factors that act as constraints for this cooperation. Burt (1967a) identified the items listed below as the most frequently mentioned problem situations. Although Burt applied these fifteen problems to situations below collegiate level, they can also occur at the college/university level.

1. Confusion on the part of school administrators as to what they want from industry.
2. Lack of knowledge on the part of the school administrators of how to approach industry or how industry is organized.
3. Suspicion on the part of school administrators of motivations of industry in working with schools.
4. Fear of school administrators that industry groups will become special interest pressure groups.
5. Lack of willingness by school administrators to provide staff to work with industry in developing cooperative relationships.
6. Overemphasis by school administrators at local, state, and national levels on advisory committees as the sole technique for achieving industry cooperation.
7. Lack of understanding by school administrators of the role of the instructor in achieving industry-education cooperation.
8. Lack of coordination of industry participation in the individual schools of the school system by administrators at central office level.

9. Jealousy of prerogatives on the part of supervisory staff, at both the central office and individual school levels so that industry participation in school programs becomes diffused and relatively impotent.

10. Preference by many supervisors of occupational education programs for developing and maintaining personal relationships with individuals in industry so that they become supportive of the educator rather than involved in the program.

11. Confusion on the part of industry concerning how to effectively work with the schools.

12. Disillusionment on the part of industry after inability to establish effective relationships with educators.

13. Lack of organization on the part of industry to effectively channel their desire to work with schools.

14. Lack of knowledge and leadership on the part of industry as to what they may rightfully demand of schools.

15. Lack of guidance from state officials, national educational organizations, and the U.S. Office of Education in providing realistic guidelines and adequate staff to enlist and encourage industry participation in school matters (pp. 39-40).

In the review of the literature the following constraints were identified as common to the collegiate/university level:

1. Lack of administrative incentives for faculty participation.
2. Administrative permission difficult to obtain for faculty involvement.
3. Lack of administrative interest and support for cooperation.
4. Difficulty in obtaining release time for faculty to work in industry.
5. Reluctance on the part of industry to cooperate when the economy is down.
6. University policy regarding faculty work load does not provide work load credit consideration for this type of effort activity.
7. Some educators fear involvement of industry.

8. Changing certain faculty members' attitudes to recognize the talent and benefits found through articulation with industrial leaders.

9. Some administrators and educators believe that unions are hurdles --they provide very little worthwhile assistance.

10. Lack of funds prevent closer cooperation and sufficient time to make contacts and maintain working relationships.

Role Expectations and Reasons for Involvement

Schaefer and Ward (1972) in discussing the role expectations of business and industry stressed that:

> The too frequent "unsung" partners of the total vocational education effort have been business and industry. The coherence aspect of a functional personnel development system stems in a major way from the practices and technology that are employed at any point in time in the world of business and industry. To be embraced as a cooperative in the total effort has long been sought by the vocational profession. The realization of business and industry as a cohesive element--sticking together in the purpose and endeavor--has long eluded the profession. Role expectations of business and industry, as well as responsibilities and relationships in the process of personnel development, have been slow to be defined and evasive in clear identification. Yet here lies one of the most valuable resources yet imagined (pp. 19-20).

Connors (1972b) in examining the role issue states that:

> ...a significant role for industry to play in the comprehensive personnel development system movement could well be the identification and promotion of the principles of leadership within the ranks of vocational education personnel (p. 238).

Connors also named the following as some basic reasons why business and industrial leaders should be interested in the creation of a strong partnership with vocational education in the area of teacher professional development (p. 231):

. Industry utilizes the products of the vocational education system; quality of instruction is therefore of concern for them;

. industrialists and their employees have sons and daughters enrolled in vocational programs; hence a personal concern for the overall quality of the teaching staff; and

. business and industry in today's world can seldom afford to assume a head-in-the-sand role on any issue relating to the common good.

Burt and Lessinger (1970) felt that:

> the most important and pervasive single reason for industry volunteer involvement in public education is industry's concern for an assured continuing supply of well-educated and properly trained manpower (p. 3).

Alternative Approaches

A number of alternative approaches for business, industry, and labor inputs into vocational teacher education are available. Thiele (1975), chairman of the National Advisory Council of Vocational Education and Director of Industrial and Community Relations, Whirlpool Corporation, suggested the following important ways by which concerned individuals in business and industry can assist the educational community. He specifically suggested the following approaches:

1. Through advisory committees--particularly the local crafts or trades advisory committees;
2. Provide input into local schools to develop and implement programs based upon current technology;
3. Design pre- and in-service teacher training programs;
4. Supply equipment;
5. Bringing teachers into shops and plants so as to update them occupationally;
6. Implementation of cooperative education programs.

These approaches, however, to be successful, also need the support, interest, and participation of organized labor.

Some other approaches, identified by McCage and Musgrove (1975) of the Illinois Tri-County Industry-Education-Labor Council, show how educators could make better use of business and industry (p. 81):

. Business and industrial representatives must be asked to become more directly involved in our program planning processes...

. (Business and industrial representatives) must be used in our day-to-day classroom activities.

- We (educators) must also learn how to go into their (business and industry) facilities in search of real world educational experiences.

Drawbaugh (1975), also, through an intensive review of literature, a number of interviews with industrial trainers, and limited visits to corporate training sites and learning laboratories, provided vocational educators with an overview of the current status of personnel development in business and industry across the United States. He concludes his report with a number of predictions and recommendations. Drawbaugh offers the following recommendations for vocational educators (p. 26-27).

- Look outside of education, to business and industry for direction in improving your curriculum otherwise obsolescence and stagnation may prevail. Base the curriculum on job analysis and move toward the use of behavioral objectives for instruction and evaluation.
- Initiate an exchange program between your vocational education and industrial training staffs. Exchange visiting interns, externs, and trainers for visiting industrial professors, managers, and administrators.
- Explore funding sources ouside of education for support to train the unemployed and minorities, and to upgrade employed workers. The Department of Labor, revenue sharing agencies, business and industry, labor organizations, and others entertain proposals for fellowships, scholarships and costs of training programs.
- Get actively involved with trainers and training directors of business and industry, government, and the military. Give more attention to relationships which emanate from memberships and participation in the professional training associations and meetings of business and industry.

It is evident that there is much to be gained for all concerned when cooperation takes place between business, industry, labor and education.

Highlights of Current Practices

An increasing number of efforts have been launched to bring business, industry, labor, and education together to develop and offer a viable professional personnel development program in vocational education. Many of these efforts have been quite successful, while others have been rather fleeting and poorly conceived. Recent literature emphasizes that a strong need exists to identify vocational teacher education departments that have developed effective strategies to maximize the input of business, industry, and labor in vocational education personnel development programs.

Personnel Exchange Programs

The personnel exchange program provides a two-way communication process to help meet the needs of education and business and industry. Personnel exchange programs involve the exchange of a person employed in business or industry for a vocational teacher educator. Thus, a vocational teacher educator would be employed by a business or industry and an industrial representative would replace the vocational teacher educator at the university or college. Almost no programs can be found that carry on a "pure" personnel exchange program; instead several variations are usually developed to fit particular needs.

Benefits

Vocational teacher educators at all levels too often become isolated from the current state of the art in their particular service areas. The personnel exchange program provides opportunities for short-term, up-to-date work experiences:

- Knowledge of current trends and practices enhances one's credibility with students and members of the occupational community.

- Occupational experiences may improve classroom teaching and program/curriculum design.

- Communication and cooperative experiences provide opportunities to maintain a working relationship with business, industry, and labor including provisions for liaison management structure, placement for future students or staff experience programs, and a source of personnel for advisory committees.

. Observation of management procedures may result in improved management practices in the department.

Business, industry, and labor representatives also stand to benefit from such arrangements. More specifically, business, industry, and labor representatives gain information regarding the objectives and processes of vocational teacher education programs. The communication and cooperative experiences provide opportunities to maintain a working relationship with the educational community including provisions for being able to identify ways to assist educational agencies in providing relevant occupational education. Participants can also learn of new media or training devices/techniques that may have relevance for training in business, industry, and labor.

Prevailing Patterns of Programs

K. F. Brasted (1953) reviewed significant cooperative activities of industry prior to 1919, and presented the reader with a historical perspective in this area. Brasted further examined industry-education cooperation in the United States and particularly as it occurred in the state of Connecticut.

More recently, Parks (1969) attempted to identify and then describe prevailing patterns and promising practices of joint participation between teacher education institutions and industries in the United States, in the initial preparation of industrial education teachers and in the upgrading of those already in service. Parks further conducted an in-depth study of twelve plans (industrial employment plans - non-employment plans) for joint participation at the following institutions. The following institutions were studied that had employment plans:

. Central Michigan University;

. Indiana State University;

. Kansas State College;

. Kent State University;

. Stout State University;

. The University of Michigan; and

. Wayne State University.

The following universities were studied that had non-employment plans:

. Indiana State University;

. Kent State University;

- University of Missouri;
- Wayne State University; and
- Western Michigan University.

Some of the major conclusions resulting from this study were as follows:

- A gap is present between the depth and the currency of knowledges and skills taught in industrial education departments, and those currently possessed by industrial workers;
- The coordinator or director is the key person in the successful functioning of a mutual involvement plan;
- Industry remains profit-conscious and participates in mutual involvement plans;
- Industry has adopted a cooperative attitude toward mutual involvement activities;
- Students enrolled in mutual involvement plans believe they benefit from written work required of them during the course of such plans; and
- Except in federally subsidized plans one of the greatest problems administrators face with mutual involvement plans is their adequate staffing in terms of released time for directors or coordinators (pp. 285-287).

University of Wisconsin-Stout (1974) under the sponsorship of the Wisconsin State Board of Vocational, Technical, and Adult Education reported on a proposed statewide personnel exchange program that would provide vocational instructors with occupational experience opportunities. Three plans were considered for implementing the program. The first plan involved a business or industrial representative and a vocational teacher exchanging positions for a stated period of time; the second plan called for employing a vocational teacher in industry, with the company supplying a part-time employee to assist in the vocational school's curriculum development; the third plan involved only the employment of vocational teachers in industry for a period of time. None of the above plans were implemented due to lack of industry interest.

Goad (1975b), Texas industry exchange coordinator, described the State Plan of Action for the Texas Personnel Development System for 1973-74, as recommended by the Advisory Council for Technical-Vocational Education in Texas. This Council proposed a workable personnel exchange with business and industry based on the following four major objectives:

- Current training and work experience opportunities for vocational-technical education teachers must be provided;

- Assign non-educational exchange personnel to jobs in education for improvement of curriculum content, teaching methods, and student services;

- Stimulate the creation of a self-supporting industry, business, government, labor and education personnel exchange system; and

- Provide public information regarding effective procedures for personnel exchange (p. 32).

Largely through the efforts of The Advisory Council for Industry-Business and Education Personnel Exchange, working with the Texas Education Agency, (Goad, 1975a) slightly over 100 exchange sites had been identified in Texas in 1975. These included training positions with the General Motors Training Centers, Sears Technical Center, Texas Bankers Association, Baylor University Medical Center and the American Society for Training and Development.

During the school year 1974-75 there were approximately 226 participants in the Texas personnel exchange program. Participants received a stipend of $75 per week through the Texas Education Agency. Training periods ranged from two weeks to three months. Two types of criteria were used for selection of applicants:

- Business, industry, labor, or government personnel were chosen from those who have...been responsible for employee training or who have helped develop inservice training, staff development, or other kinds of instructional programs.

- Vocational education teachers...(were chosen according to their) ability to acquire knowledge in industry, business, labor or government and his or her ability to transfer knowledge so acquired to the classroom or shop...applicants with five or more years of continuous teaching in the education sector received top priority (p. 4).

In the 70's, one of Oklahoma's first EPDA projects was thought to be an industry-vocational education exchange program sponsored by Southeastern Oklahoma State University at Durant. However, as the program progressed it turned out to be more of an occupational skill updating program than a true exchange program. This "upgrading" project is currently in its fifth year of operation and continues to improve (DeVaughan, 1975).

Central Missouri State University also implemented a vocational education, business, and industry staff exchange project for Distributive Education teachers and Trade and Industrial teachers. This exchange plan attempted to improve the articulation of training programs and working relationships between school and the world of work. Further, both parties became more cognizant of the other's needs and processes. Both secondary and post-secondary teachers are eligible to participate. The vocational teachers receive two semester hours of credit applicable toward renewal of vocational certification and/or a degree program. Each participating teacher and business representative must devote a minimum of six days to this in the following manner: one day at CMSU for an orientation and planning session; two days at a business/industrial site - educator observes occupational practices; two days at the participating instructor's school - business representative observes vocational programs and participates as a resource person; one day at CMSU for an evaluation session (Garber, personal communication, April, 1977).

A staff/industry exchange program for vocational teachers and administrators has been conducted in Appalachia, Kentucky. The project was funded by the Appalachian Regional Commission under the provisions of the Appalachian Regional Development Act Amendments of 1967 and operated out of the Professional Personnel Development Unit of the Kentucky Bureau of Vocational Education. The project also involved vocational educators from four different universities in Kentucky in management and coordination positions. According to Robert E. Spillman, Director of Program Supporting Services Division, Kentucky Bureau of Vocational Education,

> this has probably been the most effective personnel development technique we have utilized to build better relationships between the education community and business and industry. Teachers had an opportunity to develop technical skills in their teaching areas; but more importantly, a better working relationship has been established (personal communication, October 6, 1976).

Vocational education personnel who were selected to participate continued to receive their regular salary. Most of the exchanges took place during the summer months, when the participants were on extended contracts. Costs, such as travel and per diem, were reimbursed to participants at no cost to local systems (Thomas and White, 1976).

Wells (1974) described a setting in which the vocational teacher educator was employed in industry for a period of time. The business or industry representative became involved, on a part-time basis, in assisting the department in development of courses, preparation of institutional materials, and/or presentation of "expert" lessons. Such an in-service teacher/industry personnel exchange program was coordinated by McMillion of Virginia Polytechnic Institute and State University for Virginia vocational teachers. The program approach is adaptable to university/college settings. When a one-to-one trade-off of personnel was not possible, other types of exchanges were arranged. In one instance, teachers working at a tractor dealership received in return new equipment, class demonstration of new equipment, and career instruction in agricultural machinery. Teachers working with a local wholesale plant and flower producer received greenhouse tours and lectures on specific production procedures for their classes. The vocational teacher educator became updated with new procedures and equipment through industry tours and interviews for an intensive period of time; the industrial representative became involved in classroom instruction for a similar amount of time.

Larson and Valentine (1973) in their study expressed the need for inservice and preservice teacher education to give greater relevance to teacher education and to help prepare or update teachers for a more effective role. Their program operated two years at Colorado State University with 13 enrollees each year. Experienced vocational teachers exchanged positions with industrial representatives, instructors were placed in industry for one quarter and graduate students worked in intern leadership positions.

University of Wisconsin-Stout also maintained technically up-to-date staff and instructional content of courses through an industry-education exchange program. An exchange program was established in the spring of 1968 between this institution and Deere and Company. Because this was their first attempt at exchange, certain arbitrary arrangements were agreed upon to implement it. A technical area, in this case the field foundry, was selected. Each party carried the salaries of their respective employees. In addition, Stout covered all teacher's traveling expenses associated with the program; Deere and Company paid the living expenses of the teacher and that of its own representative (Entorf and Callender, 1969).

Responsibility for coordination of business-industry exchange programs ranges from individual institutions such as Stout State (Entorf and Callender, 1969) and Southeastern Oklahoma State University at Durant (DeVaughan, 1975) to state-wide efforts such as in Texas and Kentucky. To alleviate the needs in the priority areas identified by the Nebraska Vocational Education Professions Development Advisory Committee, a full-time staff position coordinator was created at the State Department level. One of the major duties of this coordinator was to establish exchange programs with business and industry and vocational teacher education (Shook, 1973).

In summary, personnel exchange programs properly organized and implemented can be an effective and valuable method of professional staff development.

Cooperative Internship Programs

In this era of rapidly advancing technology, there is an urgent need for more and better qualified teachers, so as to efficiently train our nation's vocational manpower. An internship, properly sponsored and coordinated by a teacher training institution in cooperation with business, industry, labor, and other agencies can assist in the development of competent vocational teachers. Bjorkquist (1972), in examining the importance of internships in personnel development, felt that internships had the potential of providing relevant educational experiences which cannot be obtained in a university instructional setting. However, he believed the magnitude of this potential is highly dependent on the nature of the internship itself.

Internships encompass the period of time spent in business, industry, or other agency for the purpose of providing the intern with supervised occupational or professional experiences. The intern may or may not receive a salary. According to Nichols (1969) as reported by Sexton (1974),

> As one examines teacher preparation in vocational education it becomes readily apparent that two types of internships are appropriate and desirable: (1) the professional internship in which an individual with occupational experience and competency serves the internship in a school setting, and (2) the occupational internship in which an individual with professional preparation serves an internship in an occupational setting to gain experience and competency in that occupation (pp. 16-17).

Internships may also be arranged for relatively short periods during the school year; others might be very extensive. Sometimes participants may be interested in new experiences in business or industry, while others may desire advanced or exploratory experience.

In discussing significant trends in professional development, Adams (1976) cited that the utilization of the cooperative concept for preservice and in-service education looks very promising, and is catching on very rapidly at institutions of higher learning. He further stated that:

> Cooperative education as a part of the initial preparation program for teachers in the trades may be the profession's best option for meeting the growing demand for new teachers (pp. 25-26).

Benefits

A number of benefits to the intern, institution, and sponsor can be derived from implementation of cooperative internship programs. The following are possible benefits:

. Promotes business, industry, labor and vocational education;

. In-service and preservice teachers may earn while they learn;

. Allows interns to associate with businessmen, craftsmen, so that an exchange of ideas can benefit the intern in his work;

. Interns can observe, first hand, changes which may reflect new skill needs in his institution of learning;

. Allows for closer cooperation between all parties concerned.

Prevailing Patterns of Programs

An in-service program for high school teachers organized by a university has been described by Majure and Robbins (1971). Agricultural education supervisors in the Mississippi State Department, in cooperation with the agricultural teacher education staff at Mississippi State University, developed an in-service training program for ten teachers in off-farm agricultural occupations. Teachers were employed on an interim basis for three weeks or more in related businesses and industries. Objectives were established for the program designed to prepare teachers with the competencies to plan, instruct, coordinate and evaluate programs in off-farm agricultural occupations.

In 1966 the Training and Technology (TAT) Project, an industry-university partnership, was organized by the Oak Ridge Associated Universities, a non-profit corporation sponsored by 41 colleges and universities in the South (Figure 1). This project combined the resources of the Union Carbide Corporation, operators of the plant for the U.S. Atomic Energy Commission, with the teacher training personnel of the University of Tennessee.

The TAT project evolved to include two main components: worker training and a Teacher Institute. Worker training involved training of disadvantaged youth and adults in selected vocational fields. The Teacher Institute, initially an EPDA funded program included (1) a preservice technical and trade and industrial teacher program, (2) in-service training of technical and trade and industrial teachers, and (3) graduate leadership internship training. In 1970 the program grew to include programs to aid individuals at their present industrial job and to prepare them for better job opportunities. All of the educational activities are conducted at the plant site (Merrill and Russell, 1968).

The Teacher Institute at Oak Ridge demonstrated that:

1. An industry-university partnership can be operated with mutual benefits to both organizations, e.g.: laboratories, shops, and equipment, not otherwise available for training at a university, and specialized technical instructors and university training not otherwise available to industry, can be utilized.

2. Technical and professional preparation courses can be developed that are viable and acceptable to both academic and industrial personnel.

3. Industrial employees are interested in and can receive university credit toward a degree in Industrial Education.

TRAINING AND TECHNOLOGY
Project Support, Organization, and Components

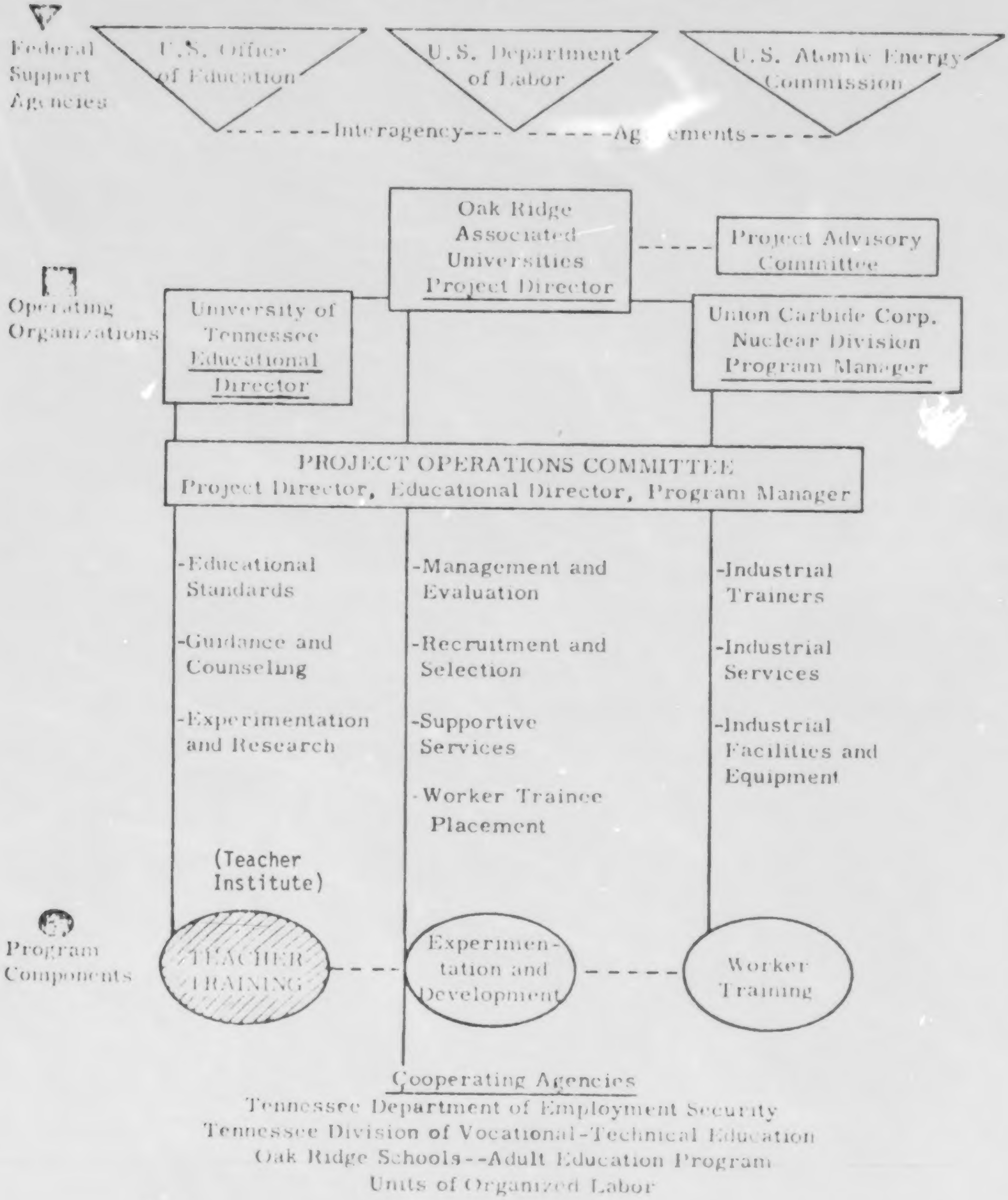

Federal Support Agencies
U.S. Office of Education
U.S. Department of Labor
U.S. Atomic Energy Commission
Interagency Agreements
Operating Organizations
Oak Ridge Associated Universities Project Director
Project Advisory Committee
University of Tennessee Educational Director
Union Carbide Corp. Nuclear Division Program Manager
PROJECT OPERATIONS COMMITTEE
Project Director, Educational Director, Program Manager
-Educational Standards
-Guidance and Counseling
-Experimentation and Research
-Management and Evaluation
-Recruitment and Selection
-Supportive Services
-Worker Trainee Placement
-Industrial Trainers
-Industrial Services
-Industrial Facilities and Equipment
(Teacher Institute)
Program Components
TEACHER TRAINING
Experimentation and Development
Worker Training
Cooperating Agencies
Tennessee Department of Employment Security
Tennessee Division of Vocational-Technical Education
Oak Ridge Schools--Adult Education Program
Units of Organized Labor

Figure 1

4. University courses in Industrial Education are considered of immediate benefit to their jobs by those enrolled.

5. Industrial workers can be recruited as a resource pool of trained prospective vocational-technical teachers through enrollment in the partnership program.

6. An industry-university partnership provides an excellent three-week in-service teacher technical updating program.

7. Military veterans are interested in and can profit by the industry-university partnership prospective teacher preparation.

8. The industry-university partnership program provides an internship environment for the technical upgrading and updating of graduate students.

Similar partnerships were established at the Lockheed Plant in Marietta, Georgia and the NASA facility at Langley Field, Virginia (Merrill and Russell, 1968, and Brown, 1970, 1974b).

Southern Illinois University (Stitt, 1969) offered a course entitled "Structured Occupational Internship for Experienced Vocational Teachers", with the full cooperation of the Research Coordinating Unit of the Illinois Board of Vocational Education and Rehabilitation, in response to the need of a number of agricultural teachers who needed an opportunity to upgrade their occupational competencies as well as maintain proficiency once it was achieved. Teachers involved in the internships were placed with suitable training stations in other school districts, not their local one, in order to broaden their involvement. This course offered three effective types of experiences with each including specified sets of activities for (1) pre-internship preparation, (2) internship. and (3) post-internship program.

A distributive education internship was offered on a pilot-project basis as part of a summer session workshop at Arizona State University for both secondary and post-secondary teachers. Teacher-coordinators participating in the project spend approximately one to three weeks in the management training program of a local business firm, with the specific amount of time being determined by the coordinator's needs. The University of Minnesota and Virginia Commonwealth University were similarly studying the feasibility of including the concept of the Distributive Education Internship as part of their Distributive Education Teacher Education Programs (Hutt and Rowe, 1977).

The Department of Business Education at the University of Southern Mississippi has a unique professional internship program for faculty members. Educators participating in such an internship receive no pay on-the-job and their work experience takes place either mornings or afternoons for a quarter of the university calendar. Faculty members have already held positions in banks, legal courts, medical clinics, insurance agencies, post offices, data processing centers, and city/county schools. As an incentive, participants receive full pay and their teaching load is reduced by half (Bonner, personal communication, June, 1977).

McEnge (1953) as reported by Parks (1969) outlined three different types of cooperative or internship programs after having polled administrators in education, labor and management representatives and graduates of the School of Mechanical Industries, Tuskegee Institute. The three cooperative plans are:

. A four-year college training program which includes two three-month periods of internship as part of the four-year industrial teacher curriculum.

. A five-year industrial arts curriculum which includes twenty-one months of organized work experience, one quarter of practice teaching, ten quarters of training in general education and professional courses, and training in ten different technical shop subjects.

. A five-year vocational-industrial education curriculum including the same amount of general and professional education, and periods of industrial internship as does the industrial arts curriculum. The latter requires training in several industrial shops, but the student enrolled in the vocational-industrial education program will devote to one shop all of the required time allotted for the shops experiences...(p. 243).

An internship program for occupational teachers involving industry exchange, curriculum building, career education, or leadership development experiences was conducted by Colorado State University. This project attempted to gain further insight into the operational aspects of internship programs, while providing opportunities for both graduate and undergraduate vocational students, as well as potential vocational teachers to better prepare for service in vocational programs (Larson and Valentine, 1974).

A study was made at Eastern Illinois University to develop and implement a system of in-service work experience internship programs for occupational education teachers. The unique characteristic of this project was determining the means by which occupational education teachers could receive released time for a minimum of 40 hours to gain skill upgrading and work experiences. Twelve teachers representing all occupational areas participated and individualized programs of personal development were established with the cooperation of the teacher participants, academic advisors and business and industrial personnel (Sexton, 1974).

The Georgia State Department of Education in cooperation with the University of Georgia provided through "Project Update" an opportunity for all vocational teachers, secondary and post-secondary, to participate in a learning experience to upgrade their occupational knowledges and skills.

Vocational teachers were placed in formal training sessions and structured work experiences in business, industry, agriculture and other selected areas. (Storm, 1976).

In Louisiana, a three-week summer internship program dealing with the latest farm machinery equipment and wood industries was offered to seventeen vocational agriculture teachers, enrolled in the Graduate School at Louisiana State University for three hours credit (Colvin, 1971).

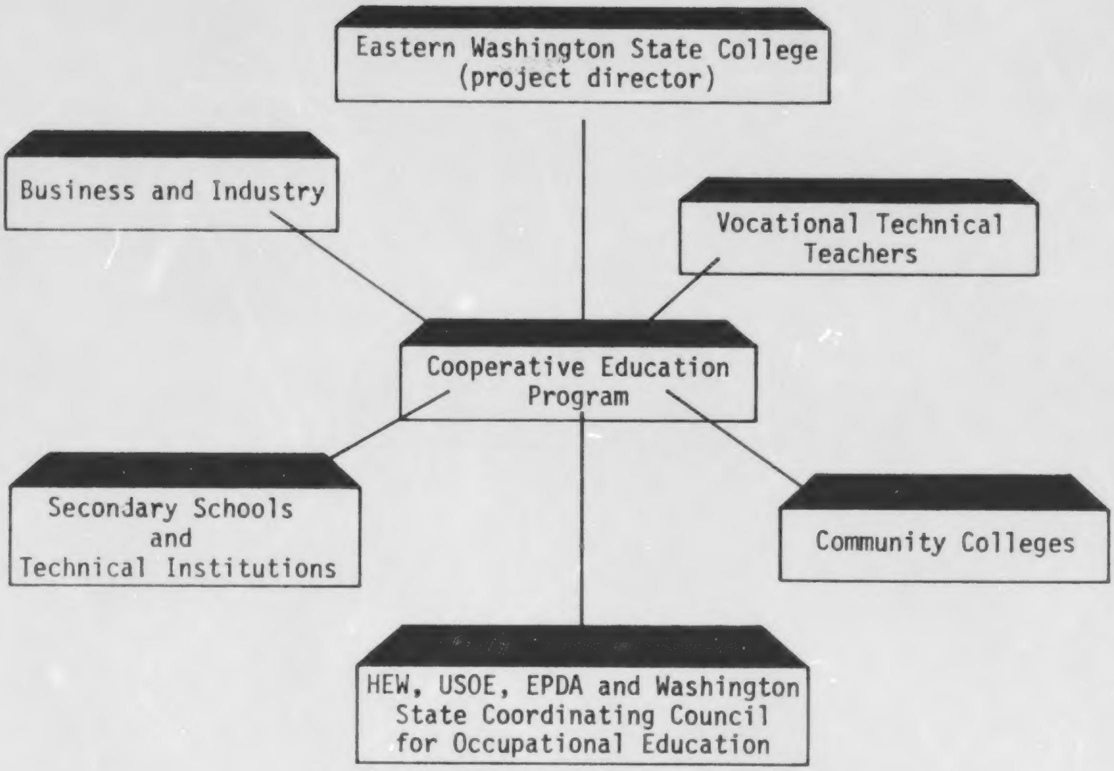
Syhlman (1972) reported on a USOE-EPDA internship project conducted through Eastern Washington State College. The project combined the concept of internship with a personnel exchange between business-industry representatives and vocational teacher coordinators of corresponding cooperative education programs. An additional emphasis of the project was special consideration to students with special needs. The cooperating agencies are named in Figure 2.

The project was conducted in two phases: Phase One - 1970-1971 and Phase Two - 1971-1972. In each phase ten different locations throughout the state of Washington were established as cooperative centers. These centers were composed of secondary schools, technical institutions, and community colleges. Both educational staff and business and industry representatives participating in the exchange portion of the program took part in a five-day orientation period, a ninety-hour exchange, and a three-day summary and evaluation session. Educational representatives and business and industry representatives were teamed not only for the personnel exchange, but for the student's cooperative work experience, and for the final evaluation. Oklahoma State Department of Vocational and Technical Education also conducted programs similar to Syhlman's internship in industry project.

Larson and Valentine (1973) suggest that an excellent way of helping teachers to keep abreast of change is through the internship program, such as the one which was structured under a grant from the Colorado State Board for Community Colleges and Occupational Education. More specifically they stated that:

> Money, resources, and persons interested in improving teaching must be found; otherwise learning will not be achieved at the level desired by either the students or the prospective employers. The index of accountability is teacher competence; the relevance of education is a direct reflection of teacher competence (p. 21).

Bowling Green State University offered prospective business education teachers a work experience program entitled "Internship in Business Education". Students perform all the regular and general office duties under the supervision of the business education department. Fourty clock hours of work for each quarter-hour of college credit is required by the course and may be repeated to three hours. Up to 80 clock hours of work experience may be waived if the student has completed at least 40 hours in two separate office


Eastern Washington State College (project director)
Business and Industry
Vocational Technical Teachers
Cooperative Education Program
Secondary Schools and Technical Institutions
Community Colleges
HEW, USOE, EPDA and Washington State Coordinating Council for Occupational Education

Cooperating Agencies in Internship Project
conducted at Eastern Washington State College
Figure 2

positions. Prospective instructors in this program have an opportunity to familiarize themselves with the latest business office equipment (Goddard, 1970).

Another coordinated occupational internship for experienced vocational teachers and counselors was in operation for one summer at the University of Northern Colorado with twenty enrollees (Shook, 1973).

The Department of Agricultural Education at Louisiana State University developed an undergraduate course, "Internship in Non-farm Agricultural Occupations". This course was designed for students completing their junior year, preparing to teach vocational agriculture in secondary schools. Six semester hours credit was granted upon successful completion of this course. Students enrolled in such a course were placed in three different nonfarm agricultural businesses for a period of 40 hours in each establishment. Prior to the beginning of the internship an agreement detailing everyone's responsibilities was signed by the parties concerned. Concurrently with the internship, students attend class for two hours a week for related classroom instruction (Smith, 1975).

Students at Ferris State College transfer to the School of Education after they have completed six terms of concentrated technical education and earned an associate of arts degree. Trade and industrial students enrolled in the secondary option complete 20-45 hours of paraprofessional internship at area high schools, another 18 quarter hours of industrial internship credit are granted for two terms of field-time supervised work in industry. A competency examination can be taken by the student teacher if he has satisfied the three years required in the program (Storm, 1974).

Central Michigan University's undergraduate program included a five-year plan. The first two years were spent on campus; the last three years consisted of semesters of alternating between on-campus courses and on-the-job paid internships. One of these internships is a ten-week summer full-time internship in industry (Parks, 1969).

More recently, Yoder and Bender (1976) at Ohio State University, Agriculture Education Department conducted a study to search for ways to improve the preservice and the in-service teacher education curriculum. They developed and implemented a cooperative occupational internship program in agricultural occupations for undergraduates aspiring to become agricultural teachers. A total of 52 student-interns were involved with this program during the 1975-76 school year and a full time coordinator with full faculty status was assigned to coordinate this internship program. As a result of the study, they concluded that:

. Many valuable occupational experiences may be acquired through structured internship work experiences in agricultural businesses.

. The placement of student-interns in agricultural businesses facilitates the continued development of closer ties and relationships between the university and agricultural businesses.

- Agricultural businesses and personnel in such businesses are very interested and supportive of the occupational internship program (p. 29).

Another professional internship exchange program in cooperative vocational education has taken place for Washington state's teacher-coordinators by providing them with professional experience in a related business or industrial firm. Business/industry was also given an opportunity to be involved in the teaching process (Shook, 1973).

In the neighboring state of Oregon, Oregon State University (nd) also implemented an Occupational Internship program which provided supervised occupational training for business, marketing, home economics, industrial and agriculture students planning to become teachers.

A National Association of Industrial and Technical Teacher Educators (NAITTE) task force (1976) examined the opportunities for upgrading technical competencies of industrial educational personnel through industrial experience. The task force, however, after preliminary investigation, focused on cooperative vocational-industrial teacher education programs. Survey results indicated that out of 223 vocational-industrial teacher institutions, 90 institutions or 40 per cent were reported as having cooperative programs in operation. An important conclusion of this study was that the college/university cooperative program offered greater long-term potential than the individual teacher employment programs of teacher-industry exchange programs. Further, they recommended that some action must be taken regarding significant problems identified through the study. The following were some of these problems:

- A general absence of using advisory committees seems to be present; and

- A general absence of documentation, student contracts, etc., similarly seems to exist (pp. 13-14).

Rutgers University, University College Division, with support from the Ford Foundation, as reported by Pautler and Buzzell (1968), established the Cooperative Occupational Pre-Teaching Experience Program (COPE). Interested high school seniors upon graduation are interviewed and, if selected, enroll in the University College for a program of late afternoon courses. Simultaneously, the student is placed in his occupation by the cooperative program coordinator with an appropriate employer, willing to participate in the preparation of the individual. Approximately 5,000 hours of work experience is required in this program to obtain 12 semester hours toward a B.S. degree. The student must also successfully pass an occupational competency test.

Beasley and Smiley (1971) have identified eleven universities having business and industry linkages and thereby offering occupational experience programs for vocational-technical teachers.

Shook (1973) reported a cooperative exchange program with industry for vocational education professional personnel which was held for two summers by the State Board of Vocational Education, Hartford, Connecticut, for twenty participants to work in related industry for approximately six weeks.

In another state, the technical and professional preparation needed for teaching vocational and technical subjects was provided through a cooperative work-study plan by the Department of Industrial Education at Wayne State University. Experienced industry persons were encouraged to become vocational and technical teachers by meeting degree or certification requirements. In the preparation of its teachers for vocational education, Wayne State University utilized the resources of community industries; it also placed great emphasis on helping the experienced tradesmen and technicians relate their industrial experiences to the development of needed instructional materials for teaching (Silvius, 1967).

Sometimes the problem is not that of preparing prospective teachers but of finding unique facilities or sources of professional upgrading available to practicing teachers or faculty. To overcome the obstacle of locating these facilities, Larson (nd) in a project at Rutgers University suggested a Vocational-Technical Teacher Technology Center. He suggested a model center specifically designed for keeping present and future vocational personnel aware of any new developments in technology, new hardware and new pedagogical developments.

George Storm (1976), of Ferris State College, on the other hand, demonstrated in his report that the opportunities for professional improvement exist in most occupational fields and that there is a wealth of excellent technical upgrading opportunities available in most regions. Even though the article stresses the upgrading of post-secondary vocational-technical instructors, the author also examined a selected variety of business, industry, labor and university level programs, thereby giving the reader an up-to-date overview of technical upgrading programs in the United States. No attempt was made in his report to compile a comprehensive list of training programs. In the same vein, Butler (1974) in his study explored essential dimensions of an information system to facilitate awareness of business and industry programs for vocational-technical teachers.

In summary, cooperative internships, as expressed by many researchers and leading educators, are a possible mode of training personnel for new responsibilities, as well as keeping instructors and/or faculty constantly up-dated.

Business / Industry / Labor Programs

The importance and growing desire for increased business, industry, labor, and education cooperation has been postulated by a multitude of prominent educators and business, industry, and labor representatives. Pecka (1972), for example, a training development manager with the Western Electric Corporate Education Center facilities, faculty, students, typical curricula and their individualized training plans, wrote that their experiences can be of benefit to us. He further goes on to say that:

> Industry is involved in education/training in a big way and must be involved for its own survival. (But)...industry needs you and is willing to work with you, shoulder to shoulder, to bring about change (p. 48).

Edwards (1975) in discussing trade unionism in American education stated the following:

> Speaking of labor, vocational education conducts most of their programs as though trade unionism was not a fact of life. Through its efforts, it has brought most of the social changes that we all enjoy: free public education, social security, retirement reform, minimum wage, and has done more to save the economy of the United States than any other group. On Capitol Hill and at the White House, organized labor has been one of the closest friends that vocational education has and it is time that it is included in all curriculum (p. 39).

Lieberthal (1967) similarly supported this view by stating that:

> The labor movement includes many unions in basic industries, printing, service occupations, and government employment. These unions represent potential but largely untapped community support for vocational education (p. 49).

Labor represents a somewhat unique resource in that their resources and community involvement are frequently masked by the public's perception of them as simply advocates for their membership while on a job. In reality, many unions are extremely community oriented, have an abiding interest in the total welfare of their members including education, and can back up their interest with personal representation and other resources.

An active interaction and communication with business, industry and labor is therefore required, and an entirely new relationship needs to be born between education and the private sector. This relationship demands an open university administrative environment that minimizes the barriers between the institution and the private sector and encourages a thorough, two-way flow of communication.

Benefits

Educators and teachers tend to view business, industry and labor from widely different perspectives and to hold conflicting points of view regarding their contributions to the community at large and the institutions of learning. But educators need to be conscious of the wealth of educational potential available from the world of work. Potential benefits include:

- Provides a forum for the exchange of ideas and information;
- Assists in improvement of instruction in schools by updating teacher and educator competence;
- Provides an opportunity to utilize unique resources for the enrichment of education;
- Provides an opportunity to become acquainted with selected business and industrial offerings and their needs;
- Provides an opportunity to participate in some business, industry and labor project which has implications for enriching educational programs; and
- Brings educational resources together.

Prevailing Patterns of Programs

Many organizations across this country are in some way substantially engaged in the support of human services. In order to obtain a better understanding, appreciation, and support for business, industry and labor an attempt has been made to provide the reader with a look at some industry-education activities.

Industry-Education Councils

Education and work councils have sprung up around the nation for a number of reasons--to bring together local education, labor, business and industry representatives, high youth unemployment, and better public image of business. A strong Industry-Education Alliance can strengthen the institutional program at various levels in our schools. The Niagara Falls Area Industry-Education Council of New York is an example, among many others which may by found across this nation, of an effective alliance that has taken place. This council regroups decision makers from business, labor government, education, agriculture and the professions. Some of the important functions assumed by this council are:

- bringing all the educational resources within a community together;
- serving as a system-wide umbrella for coordinating industry-education cooperation; and
- helping mobilize key resources in the community, and developing plans for their allocation (Clark, 1976).

The Texas Industry Council, under the leadership of Dr. Walter Kerr, Coordinator for Industry-Education-Labor for the State of Texas, as reported by Goad (1975a), is another council which continues to gain momentum and increase involvement from a number of groups.

The Flint, Michigan, Business-Education Coordinating Council during the 1974 school year coordinated a number of activities. One of these activities follows: Thirteen employers from business, industry and government provided job exposure for twenty-six educators from thirteen school districts. The University of Michigan agreed to provide graduate credit to the participants and local business offers scholarships (Mendez, 1974b).

McCage and Musgrove (1975) focus on and describe the success of the Tri-County Industry-Education-Labor Council in Illinois. This cooperation is another excellent example of how both the research process and the local input process can work together to identify and solve problems in a community.

Mendez (1974b), federal coordinator for Industry-Education-Labor, in his Progress Report on Industry-Education-Labor Relations, also reviewed generally the major highlights of industry-education-labor activities in the U.S.

An essential element of any successful industry-education-labor cooperative program development is communication (Duet, 1975). Dialogue can begin to improve the quality of education jointly; that is why many states have set up industry-labor-education coordinator positions. For example, industry-education contacts are facilitated in New York State through the office of the industry-education coordinator (Ullery, 1975). An illustration of how New York industry and education provides cooperative experiences for teachers and students is briefly described below by the state's industry-education coordinator:

> Just as I believe very sincerely in work experience for students, I believe in just as sincerely for teachers. Last year, we had a curriculum development project in which teachers were afforded an opportunity to spend one-half day in industry and another half-day developing related curriculum material. This project was carried on in five colleges. Three hundred teachers applied for this program and were rejected, not because they weren't qualified to participate, but because the programs just did not have sufficient capacity to handle them (Ullery, 1973, p. 22).

Cooperative and collaborative effort between business, industry and labor doesn't stop there, but continues to flourish in other ways. In Louisiana, the Louisiana Shipbuilders Association is involved in the production of career education curriculum guides and in the exchange of full-time and resource personnel on a scheduled basis. On January 17, 1973, the General Executive Board of International Brotherhood of Teamsters adopted a policy statement on education supporting USOE's industry-education action concept, declaring belief in working closely with federal, state and local agencies and govenments to provide education responsive to changing manpower needs (Mendez, 1974b). The United Auto Workers Union adopted also a policy statement on career education (United Auto Workers, 1976)

Workshops, Seminars, and Conferences

Community Resource Workshops, organized and developed by the National Association for Industry-Education Cooperation (Ayars, 1975), are educational programs in which instructors come together from a local community for approximately six weeks during the summer to study intensively the available teaching resources in the community. A sponsoring university and/or college usually grants graduate and undergraduate credit for the program. The states of Michigan, New Jersey, Ohio, New York, Indiana, and Washington are some of the states where these programs have been held.

Funds for the workshops are raised locally from industry, business, labor groups, and schools. The National Association of Manufacturers (ND) provides guidelines for organizing community resources workshops in its booklet Community Resources Workshops: A First Step Toward Better Industry-Education Cooperation. The booklet describes characteristics, planning, and anticipated outcomes from such an intensive, university-sponsored four to six week course.

Seminars. Periodic seminars on the economics of the steel industry are conducted for educators by the American Iron and Steel Institute. The reported seminar had been hosted by the University of Pittsburgh's Graduate School of Business for 70 educators from colleges and universities in four states. Seminars range from two to five days and cover many of the major issues currently facing the steel industry: capital formation, pollution control, energy availability, international trade, government regulation and labor relations. Activities include presentations, question and answer sessions, group discussions, and mill tours. No two seminars are exactly alike but all of the seminars do share the following characteristics:

- The American Iron and Steel Institute's Committee on Education Cooperation serves as the sponsoring agency.
- Orientation of the seminar is around the broad general topic of steel industry economics.
- The seminar is held on the campus of a sponsoring university or college which serves in a co-sponsoring role.
- Content of the seminar is mutually determined.
- "The entire seminar is off the record" to encourage a frank and confidential exchange of ideas.
- One half day is devoted to a tour of a nearby steel giant.

. The number of participants from the universities has varied from thirty to forty professors - about half that number attend from industry.

. American Iron and Steel Institute pays all expenses - travel, rooms, and meals of participants - and reimburses the sponsoring institution for all out-of-pocket costs (American Iron and Steel Institute, 1973).

Conferences. The Pennsylvania Advisory Council of Vocational Education, the Department of Vocational Education and the Department of Labor Studies at the Pennsylvania State University recently sponsored a conference on Labor-Educator, Leaders Exchange on Vocational Education. The overall objectives of this conference were established to develop a setting which would be conducive to a relevant dialogue exchange between labor and educational leaders for the enhancement of vocational education in Pennsylvania. Conference participants, the vocational directors and supervisors of Pennsylvania were surveyed prior to the conference to help identify and prioritize the issues to be discussed at this conference. Twenty-three participants representing labor and education from throughout Pennsylvania were invited to attend a two-day conference held at Penn State to discuss the issues and questions identified by the survey. Participants then arrived at conclusions and made recommendations (Evans, 1976).

A perceptive article described a few cooperative activities that have in the past and still are taking place between business, industry and education to help teachers update their instruction and knowledge of the world of work. According to the author, many persons interested in such activities are not aware of their existence and the region in which they occur.

> For 18 years, principally in four or five northern states, summer programs for teachers have been conducted under the auspices of the National Community Resource Workshop Association. These programs involve a university, local business and industry, and of course teachers K-12 (Hamilton, 1972).

In Detroit, General Motors works closely with the Chamber of Commerce and local educators by providing classroom instruction at the college level for high school teachers and counselors, participating in in-service workshops (Mendez, 1974b), and by providing a number of internships of four to six weeks each summer for high school counselors and teachers.

A number of states have taken positive steps to alleviate the problem of personnel development in vocational education through certification requirements. For example, the Minnesota State Plan for Vocational Education requires evidence of 108 clock hours of updating activities for each five-year vocational certificate renewal. This can be achieved through participation in industrial conferences, institutes, and seminars in business and industry which are rated on actual clock hour basis. Idaho's State Plan contains similar requirements for technical upgrading (Storm, 1976).

Plant Visits

General Electric, as reported by Sweeney and Shafe (1976), is involved in programs entitled "Educators-in-Industry". This concept was pioneered in Louisville, Kentucky and Lynn, Massachusetts where General Electric has long-standing relationships with the city's secondary school systems and local universities. The Educators-in-Industry programs are conducted during the school year for teams of secondary school teachers, counselors and administrators. They are planned and implemented by local college faculty in cooperation with representatives from local industries. Two universities, Western Kentucky and the University of Louisville, co-sponsor the Louisville program, while Boston University plays a lead role in the Lynn program. All programs carry graduate credits with additional credit hours available for projects implemented as a follow-up to the seminars. This program is comprised of a series of two- to three-hour sessions conducted for twelve to fifteen consecutive weeks and supplemented with plant visits.

Fellowships

Price Waterhouse (1974) offers a Faculty Fellowship Program which is now in its eighteenth year. Under this fellowship, invited faculty members become part of an office's operations. The faculty fellows' involvements include a wide spectrum of areas, such as studying the firm's continuing education program, reviewing audit techniques, research in specialized accounting areas, and the analysis of the use of computers in auditing. Participants are offered an opportunity to keep up with current operations of a large public accounting firm.

Arthur Anderson and Co. (1975) has organized a six-fold program. Available are:

- A number of fellowships each year to enable prospective accounting teachers career at the university level.
- Matching contributions by the foundation.
- The Foundation provides professors of accounting with practical experience and research opportunities in public accounting through faculty residencies.
- Available to selected university professors of accounting is the firm's research facilities.
- Distributes without charge to university libraries copies of "Cases in Public Accounting Practice".
- Provides educational films and qualified speakers (p. 1).

Business/Industry Training Programs

A limited amount of research has dealt with business, industry training programs for vocational-technical education teachers. The following research reveals some of their offerings.

Shrader (1967) as reported by Butler (1974) in his study found that fifty-four colleges and universities cooperated with 83 major industrial training centers to offer credit for factory-school training. One of his major conclusions was that many institutions of higher learning consider this training a complement to training within the industrial education departments and a valid means of securing college or university credit.

Wenig and Wolansky (1972) felt that vocational technical educators should study job training programs and policies in industry to help them update their school curricula. Furthermore, they suggest that information is needed on how to build solid cooperative linkages between business, industry, and vocational-technical education.

Oxe (1966), in his survey of eighty-one selected automobile manufacturers training programs, found that most of them would accept education personnel into their programs.

Maxwell (1969) in his study identified industrial training programs in which industrial education personnel could participate. Thirty-nine different organizations were identified by him which offer a variety of courses open to industrial education teachers. A major conclusion of the study was that low cost training opportunities are available at a number of locations and that industry is willing to assist in improvement of instruction in schools by updating teacher competence.

Somers, et al., (1971), in a study conducted on company training programs in Wisconsin, found that 170 of the 248 business firm respondents had some type of training program. Larger companies, with 500 or more employees, however, tended to have a greater number of training programs than smaller firms.

As can be seen, there is little doubt that interest exists to bring vocational-technical education teachers into closer contact with business, industry, and labor.

Summary Observations

The review of current practices focused on the program development aspects of business, industry, and labor linkages concerning:

. Advantages of educators establishing linkages with business, industry, and labor;

. Caveats or constraints to establishing linkages; and

. Successful case histories in establishing linkages which included activities in:

  - Cooperative internships,
  - Personnel exchange programs,
  - Use of resource persons,
  - Staff development, and
  - Business/industry/labor programs.

The review of current practices was valuable in that it provided project staff with a clear perspective of the program linkage problems and opportunities as they are described in the literature. In addition to providing substantive content for the preparation of the project Resource Handbook sections, the review provided an opportunity to draw some observations from this study concerning the present state of business, industry, and labor linkages with vocational teacher education departments. These observations indicate that:

. Because of the significant role the private sector can play, interaction with business, industry and labor is becoming a much more popular idea and an issue of the day;

. Specifications and requirements for business, industry, labor involvement are being considered by more states; certification training requirements are similarly considered;

. Because of the lack of adequate documentation that has been included in the major information systems, higher education indicates just the beginnings of the awareness of the need to become involved;

. As far as linkage activities are concerned, the secondary and postsecondary institutions show greater involvement than vocational teacher education departments;

- A limited description of operational procedures, absence of sample exhibits and model implementation procedures seems to exist;
- A number of organizations across this nation are in some way substantially engaged in the support of linkage activities;
- A number of constraints still prevent effective mutual assistance with business, industry, labor and vocational teacher education departments;
- Many programs are becoming more formalized in terms of number of people involved, funding, and support;
- A number of states see the need for teacher education institutions to build a more solid relationship with business, industry and labor, so as to give greater relevance to teacher education and to help prepare or update teachers for a more effective role in this country.
- Cooperative experiences provide excellent opportunities for maintaining a working relationship with the private sector;
- More vocational teacher education institutions are making cooperative internships concept an available option and offer a variety of plans;
- Business, industry, and labor has adopted a cooperative attitude towards involvement with vocational teacher education departments; and
- Diversified numbers of faculty exchange programs are gaining visibility and therefore improve the articulation of training programs and working relationships between school and the world of work:

REFERENCES

Adams, A. D. Significant trends in professional development. American Vocational Journal, October, 1976, 51(7), 24-26.

American Iron and Steel Institute. Education Cooperation Activities and Services of American Iron and Steel Institute. Washington, D.C.: American Iron and Steel Institute, 1973.

Arthur Anderson and Co. Program of Assistance: To Colleges and Universities and to Accounting Professors. Chicago, Illinois: Personnel Development Division, 1975.

Argars, A. L. How business and industry are helping the schools. Saturday Review, October 17, 1964.

Ayars, A. L. et al. How to Plan a Community Resources Workshop. Buffalo, New York: National Association for Industry-Education Cooperation, 1975.

Beasley, G. and Smiley, J. Occupational Experiences for Vocational Education Teachers. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational Education, September, 1971.

Bjorkquist, D. Internship and its role in personnel development. In E. N. Kazarian and D. L. Ward (Eds.), Comprehensive Personnel Development for Vocational-Technical Education: Fourth Annual National Leadership Development Seminar for State Directors of Vocational Education. Columbus, Ohio: The Center for Vocational Education, 1972.

Brasted, K. F. A Study of the Extent, Nature, and Problems of the Relationships Between Industry and Education in Connecticut During the First Half of the Twentieth Century. Unpublished doctoral dissertation, New York University, 1953.

Brown, D. V. Industry-Education Cooperative Program for Preservice and Inservice Vocational and Technical Teacher Training. Oak Ridge, Tennessee: Union Carbide Corporation, 1970.

Brown, D. V. How to teach teachers and technicians under one roof. American Vocational Journal, October, 1974(a), 49(7), 50-53.

Brown, D. V. A teaching partnership. Training and Development Journal, April, 1974(b), 28(4), 3-9.

Burt, S. M. If I were a member of a vocational-educational advisory committee. Presented to the University of Michigan Leadership Development Program for Vocational and Technical Education, Ann Arbor, Michigan, August 15, 1967(a).

Burt, S. M. Industry and Vocational-Technical Education. New York: McGraw-Hill Book Co., 1967(b).

Burt, S. M. and Lessinger, L. M. Volunteer Industry Involvement in Public Education. Lexington, Massachusetts: Heath Lexington Books, 1970.

Butler, R. L. Essential dimensions of an information system to facilitate awareness of business and industry programs for vocational-technical education teachers. Unpublished doctoral dissertation, The Ohio State University, 1974.

Clark, D. M. The Niagara Falls Area Industry-Education Council: The link between education and work. Paper presented at the Houston Career Education Conference, November, 1976.

Colvin, T. S. Internship in off-farm agriculture. Agricultural Education Magazine, May, 1971, 43(11), 266.

Connors, J. F. Industry and vocational education - partners? Training and Development Journal, March, 1972(a), 26(3), 16-23.

Connors, J. F. The role of industry in a comprehensive vocational education personnel development and utilization system. In C. E. Leslie et al. (Eds.), Comprehensive Vocational Education Personnel Development and Utilization. Washington, D. C.: U.S. Government Printing Office, 1972(b).

DeVaughan, Z. In-service personnel development programs for improving technical competence in Oklahoma. In K. E. Gray and W. J. Petrie (Eds.), In-Service Vocational Education Personnel Development for the 1980's. Columbus, Ohio: The Center for Vocational Education, 1975.

Drawbaugh, C. C. An overview of personnel development in business and industry. In D. E. Koble, M. Newton, & P. Lewis (Eds.), 1975 National Vocational Education Personnel Development Seminar. Columbus, Ohio: The Center for Vocational Education, 1975.

Duet, C. P. An analysis of the communication process in industry-education-labor cooperative program development. In D. E. Koble, M. Newton, & P. Lewis (Eds.), 1975 National Vocational Education Personnel Development Seminar. Columbus, Ohio: The Center for Vocational Education, 1975.

Edwards, K. R. Labor looks at vocational education. In D. E. Koble, M. Newton, & P. Lewis (Eds.), 1975 National Vocational Education Personnel Development Seminar. Columbus, Ohio: The Center for Vocational Education, 1975.

Entorf, J. F. and Callender, R. W. Industry-education exchange: A program for mutual assistance. Technical Education News, 1969, 28(3), 7-9.

Evans, E. D. Labor-Educator Leaders Exchange on Vocational Education - Conference Report. Labor Series, Labor Monograph, Number 1. University Park, Pennsylvania: The Pennsylvania State University, June, 1976.

Ford, G. R. Remarks of the President of the United States. Presented at the summer commencement of The Ohio State University, August 30, 1974. In Bringing the World of Work and the Institutions of Education Closer Together: Occasional Paper No. 28. Columbus, Ohio: The Center for Vocational Education, 1977.

Goad, H. H. Industry-Business-Labor-Government Vocational Education Personnel Development Project, Final Report. OEG 0-70-1965. Austin, Texas: Texas Education Agency, 1975(a).

Goad, H. H. In-service personnel development programs for improving technical competence in Texas. In K. E. Gray and W. J. Petrie, In-Service Vocational Education Personnel Development for the 1980's. Columbus, Ohio: The Center for Vocational Education, January, 1975(b).

Goddard, L. M. Work experience for prospective and in-service business education teachers. Business Education Forum, December, 1970, 25(3), 25-28.

Hamilton, L. The four R's in educational partnership: Roles, relationships, responsibilities, and resources. Man/Society/Technology: A Journal of Industrial Arts Education, September/October, 1972, 32(1).

Hutt, R. and Rowe, K. L. Distributive education internship: A program for updating business knowledge and competence. Tempe, Arizona: College of Business Administration, Arizona State University, April 25, 1977.

Larson, M. E. Technology-Resource Center for Vocational-Technical Education. New Brunswick, New Jersey: Rutgers-The State University (nd).

Larson, M. E. and Valentine, I. Accountability begins with preparing teachers for trade and technical subjects. Technical Education News, 1973, 32 (2), 19-21.

Larson, M. E. and Valentine, I. An Internship Program for Occupational Teachers Involving Industry-Exchange, Curriculum Building, Career Education, or Leadership Development Experiences, Directors' Final Report. Ft. Collins, Colorado: Department of Vocational Education, Colorado State University, 1974.

Lieberthal, M. Labor: Neglected source of support. American Vocational Journal, 1967, 42(9), 49-52.

Majure, T. V. and Robbins, B. School-industry cooperation in Mississippi. The Agricultural Education Magazine, 1971, 44(5), 112-113.

Maxwell, D. K. Industrial training programs open to industrial education teachers. Unpublished master's thesis, Iowa State University, 1969.

McCage, R. D. and Musgrove, P. B. An industry-education-labor council that works. In D. E. Koble, M. Newton, & P. Lewis (Eds.), 1975 National Vocational Education Personnel Development Seminar. Columbus, Ohio: The Center for Vocational Education, 1975.

McEnge, W. The development of a teacher education curriculum in industrial education with special emphasis upon industrial internship. Doctoral dissertation, New York University, 1953.

Mendez, L. G. Industry-education-labor relations. Remarks made before the Conference of the U.S. Commissioner of Education for Chief State School Officers, Washington, D.C., June 14, 1974(a).

Mendez, L. G. Progress Report: Industry-Education-Labor Relations. Washington, D.C.: Department of Health, Education, and Welfare, 1974(b).

Merrill, E. L. and Russell, W. H. The Training and Technology Project Experimental Research Program for Vocational-Technical Teachers: Final Report. Knoxville, Tennessee: Oak Ridge Associated Universities; Tennessee University, 1968.

National Association of Industrial and Technical Teacher Educators (NAITTE). Cooperative Vocational-Industrial Teacher Education: Report of a Task Force to Study the Opportunities for Upgrading Technical Competence of Industrial Education Personnel through Industrial Experience. NAITTE, 1976.

National Association of Manufacturers. Community Resources Workshops. New York: Education Department, National Association of Manufacturers (nd).

Nichols, C. W. Internships for prospective vocational teachers. National Business Education Quarterly, Winter, 1969, 38, 7-13.

Oregon State University. Occupational Internship. Oregon State Board of Higher Education (nd).

Oxe, C. E. Survey of selected automobile manufacturers training programs. Unpublished master's thesis, San Diego State College, 1966.

Parks, G. A. Industry-education mutual involvement in industrial teacher preparation and upgrading. Unpublished doctoral dissertation, Wayne State University, 1969.

Pautler, A. J. and Buzzell, C. J. Cooperative Education Program for Prospective Vocational-Technical Education Teachers (COPE). Rutgers, New Jersey: Department of Vocational-Technical Education, Rutgers-The State University, July 1, 1968.

Pecka, R. G. An industrial corporation's approach to personnel development. In E. N. Kazarian and D. L. Ward (Eds.), Comprehensive Personnel Development for Vocational-Technical Education: Fourth Annual National Leadership Development Seminar for State Directors of Vocational Education. Columbus, Ohio: The Center for Vocational Education, 1972.

Price Waterhouse and Co. The firm's faculty fellows 1974. Price Waterhouse and Co. Review, 1974, 19(3), 32-33.

Quinlan, G. Professional competence, no lifetime guarantees. Canadian Vocational Journal, April 1976, 12(1), 7-9.

Schaefer, C. J. and Ward, D. L. A model for a comprehensive state personnel development system in vocational education. Paper of the 1971 National Leadership Development Seminar for State Directors of Vocational Education, The Center for Vocational Education, 1972.

Sexton, C. N. In-Service Work Experience Internship Program for Occupational Education Teachers. Charleston: Department of Health Education, Eastern Illinois University, 1974.

Shook, M. W. A preliminary survey of professional development programs funded under section 553, Education Professions Development Act. Career and Vocational Education Professions Development Report No. 6. North Carolina: Center for Occupational Education, North Carolina State University at Raleigh, 1973.

Silvius, H. G. Developing college-industry cooperative programs in vocational teacher education. Presented at Institute on Critical Issues in Vocational and Technical Teacher Education in Small Colleges and Universities. Raleigh, North Carolina: Center for Occupational Education, North Carolina State University at Raleigh, 1967.

Smith, C. W. Internships in nonfarm agriculture for prospective teachers. The Agriculture Education Magazine, 1975, 47(8), 186-187.

Somers, G. G., et al. The Availability of Data on Company Training Programs: A Feasibility Study. Madison, Wisconsin: Center for Studies in Vocational Technical Education, The University of Wisconsin, June, 1971.

Stitt, T. R. Internship - A tool for upgrading and maintaining proficiencies required by experienced agriculture occupational teachers. The Journal of the National Association of Colleges and Teachers of Agriculture, March, 1969, 13(1), 10-13.

Storm, G. Vocational teacher education at Ferris State College. American Vocational Journal, January, 1974, 49(1), 44-49.

Storm, G. State of the art - In-service technical upgrading of post-secondary vocational-technical instructors. In C. R. Doty and R. Gepner (Eds.), *Post-Secondary Personnel Development*, Vol. 1. St. Louis, Missouri: National Conference on Personnel Development, 1976.

Sweeney, T. J. and Shafe, M. General Electric educators in industry programs. Presented at the National Association for Industry-Education Cooperation Conference, Columbus, Ohio, November 29-30, 1976.

Syhlman, B. D. *The Professional Internship Exchange Program in Vocational Education*. Cheney, Washington: Division of Business and Industry, Eastern Washington State College, 1972.

Thiele, J. W. Industry and education stand together. In D. E. Koble, M. Newton, & P. Lewis (Eds.), *1975 National Vocational Education Personnel Development Seminar*. Columbus, Ohio: The Center for Vocational Education, 1975.

Thomas, E. G. and White, P. E. Manual for the Kentucky Appalachia Vocational Staff Exchange Project. Bureau of Vocational Education, Kentucky Department of Education and The Appalachian Region Commission, 1976.

Tice, W. Introductory letter in *National Issues in Education Professions Development*. Washington, D.C.: National Advisory Council on Education Professions Development, Fall, 1976.

Toffler, A. *Future Shock*. New York: Random House, 1970.

Ullery, R. J. New York state and industry-education cooperation. *Industry-Education Projects*. New York: National Association of Manufacturers, 1973.

Ullery, R. J. Some in-service personnel development patterns - New York State. Paper presented at the Eighth National Vocational Education Personnel Development Seminar, Madison, Wisconsin, January, 1975.

United Auto Workers. *United Auto Workers Career Education Statement*. Detroit, Michigan: United Auto Workers Education Department, January, 1976.

U.S., *Statutes at Large*. Education Professions Development Act, Section 552, as amended in Vocational Education Amendments of 1968, Public Law 90-576.

U.S., *Statutes at Large*. Vocational Education Amendments of 1968. Public Law 90-576.

U.S. Department of Health, Education, and Welfare, Office of Education. *Vocational Education Amendments of 1968*. Washington, D.C.: Superintendent of Documents, Government Printing Office, 1968.

University of Wisconsin-Stout. Industry/Exchange Program: Final Report. Menomonie, Wisconsin: The Center for Vocational, Technical, and Adult Education, University of Wisconsin-Stout, 1974.

Wells, W. Teacher-industry personnel exchange. The Agricultural Magazine, 1974, 46(12), 281-282.

Wenig, R. E. and Wolansky, W. D. Review and Synthesis of Literature of Job Training in Industry. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational Education, June, 1972.

Wirtz, W. Collaboration in smoothing the transitions between education and work. The Work-Education Exchange, 1977, 1(1), 1.

Yoder, P. E. and Bender, R. E. Development and Implementation of Internship Programs in Agricultural Occupations for Present and Prospective Vocational Agriculture Teachers. Columbus, Ohio: Department of Agricultural Education, The Ohio State University, September, 1976.

Addendum Two

NATIONAL SURVEY OF VOCATIONAL TEACHER EDUCATION DEPARTMENTS

Introduction

The survey of vocational teacher education departments, as part of the total project development efforts, was designed to contribute to content decisions for the training resource package and complement the literature research and individual staff development efforts. To aid decision making the survey instrument included questions that would help determine:

1. The extent to which vocational teacher education departments are utilizing inputs from business, industry, and labor in promoting and developing more effective programs;
2. Content or topics that should be presented in a resource handbook on utilizing inputs from business, industry, and labor contacts;
3. Types of problems encountered in developing linkages with business, industry, and labor;
4. Need for a training resource package, and interest in participating in a workshop on improving linkages with business, industry, and labor;
5. Additional resource persons and reference materials that would be valuable to the project development objectives.

To accomplish this a four page, ten question survey instrument was developed by the Center project staff with the assistance of the Project Planning Committee members. A copy of the survey instrument is reproduced in Appendix B. A field test of the survey instrument was conducted by staff of the Evaluation Division of The Center. The approved survey questionnaire was printed and sent first class mail as of September 24, 1976, to 664 chairpersons of vocational teacher education departments that were identified throughout the nation. A cover letter and pre-paid return envelopes accompanied each questionnaire; the letter was used to describe the purpose of the project and to solicit the cooperation of the vocational education departments in this study. A copy of the cover letter is reproduced in Appendix C. In order to meet project development schedules, survey respondents were asked to return the completed questionnaire within five working days. Processing of returns for inclusion in the results of this survey was terminated November 15, 1976. The results of the survey were summarized based on responses received from approximately 46 percent of those surveyed.

Due to budget and time restrictions, no follow-up mailing was made to survey non-respondents. Since the purpose of the survey was to gather information for developmental purposes, rather than to conduct a rigorous survey of the state of the art in business, industry, and labor linkages, the project staff determined that the initial 46 percent rate of return, representing usable returns from 312 vocational departments, was adequate to meet its information needs.

Teacher Education Departments Represented

The list of vocational teacher education departments contacted in the survey was compiled based on The Center's mailing list and from national directories of professional vocational teacher education organizations. The distribution of the vocational teacher education departments surveyed according to the U.S. Office of Education regions is included in Table 1.

The responses from the vocational teacher education departments represents a wide variety of vocational education view-points. The chairpersons were asked to indicate the service areas represented by their department. The chairpersons represented both single-purpose departments and multi-service area departments; the variety of service area view-points represented in the survey related to business, industry, and labor linkages is included in Table 2.

Table 1

	Number of Responses	Number of Departments Surveyed
Region I		
Massachusetts	1	5
Connecticut	5	7
Maine	1	2
New Hampshire	5	5
Rhode Island	2	6
Vermont	2	4
Region I Total	16	29
Region II		
New York	10	24
New Jersey	4	12
Region II Total	14	36
Region III		
Pennsylvania	7	18
Delaware	3	5
Washington, D.C.	0	2
Maryland	3	7
Virginia	7	20
West Virginia	4	9
Region III Total	24	61

	Number of Responses	Number of Departments Surveyed
Region IV		
Georgia	5	18
Alabama	7	19
Florida	5	16
Kentucky	9	15
Mississippi	10	17
North Carolina	8	18
South Carolina	3	12
Tennessee	8	18
Region IV Total	55	133
Region V		
Illinois	11	28
Indiana	9	16
Michigan	15	28
Minnesota	11	18
Ohio	19	31
Wisconsin	5	15
Region V Total	70	136
Region VI		
Texas	14	39
Arkansas	6	17
Louisiana	4	8

	Number of Responses	Number of Departments Surveyed
New Mexico	4	8
Oklahoma	10	18
Region VI Total	38	90
Region VII		
Missouri	14	14
Iowa	5	9
Kansas	5	10
Nebraska	6	12
Region VII Total	30	45
Region VIII		
Colorado	7	14
Montana	2	6
North Dakota	2	9
South Dakota	3	8
Utah	9	12
Wyoming	1	1
Region VIII Total	24	50
Region IX		
California	14	35
Arizona	10	11
Hawaii	1	3

	Number of Responses	Number of Departments Surveyed
Nevada	3	3
Region IX Total	28	52
Region X		
Washington	6	14
Alaska	1	1
Idaho	2	9
Oregon	4	8
Region X Total	13	32
Total of all Regions	312	664

Table 2

Service Areas	Number
Agriculture Education	67
Distributive Education	82
Health Education	35
Home Economics Education	66
Business and Office Education	147
Technical Education	65
Trade and Industrial Education	85
Industrial Arts	79

Extent/Value of Linkages

Extent of Contacts

The respondents were requested to indicate to what extent their department had developed and/or used inputs from business, industry, and labor in its preservice and in-service vocational teacher education programs. The extent of preservice and in-service involvement is indicated in Table 3.

Table 3

Inputs for Preservice Programs

	Little	Some	Frequent
Business/Industry	25%	51%	24%
Organized Labor	73	22	5

Inputs for In-Service Programs

	Little	Some	Frequent
Business/Industry	17%	54%	29%
Organized Labor	63	32	5

Value of Involvement Methods/Techniques

The respondents were requested to indicate the value of a variety of methods and techniques that may be used to involve business, industry, and labor as a resource in support of vocational teacher education programs. Their opinions were requested based on actual experience they have had with the various methods/techniques, as well as to indicate the potential value of other methods/techniques not being currently used by their department. The results for opinions of estimated value of methods/techniques based on experiences are indicated in Table 4. The results of opinions of vocational teacher education department chairpersons of estimated potential value of methods/techniques are indicated in Table 5.

Table 4

	Estimated Value Based on Experience		
	Little	Some	Great
PROGRAM OPERATION			
Advisory committees	19%	45%	37
Informal/ad hoc committees	20	53	27
Cooperative programs	20	40	41
Personnel exchange programs	54	35	11
Field trips	9	44	47
Workshops	10	39	51
PROGRAM SUPPORT			
Grants/scholarships/awards	34	36	30
Student recruitment	24	52	25
Donation/loan of equipment	47	35	18
Loan/sharing of facilities	57	31	12
Donation of material/software	40	40	19
PROGRAM DEVELOPMENT			
Program goal development	25	51	24
Curriculum development	24	44	32
Occupational analysis	26	45	28
Program evaluation	25	50	26
Program revision	28	49	23
Certification requirements	45	34	21

Table 5

	Estimated Potential Value		
	Little	Some	Great
PROGRAM OPERATION			
Advisory committees	5%	38%	58%
Informal/ad hoc committees	12	50	38
Cooperative programs	5	34	61
Personnel exchange programs	15	50	35
Field trips	3	38	59
Workshops	6	27	67
PROGRAM SUPPORT			
Grants/scholarships/awards	6	30	64
Student recruitment	8	46	46
Donation/loan of equipment	15	41	44
Loan/sharing of facilities	19	48	33
Donation of material/software	14	39	46
PROGRAM DEVELOPMENT			
Program goal development	10	44	46
Curriculum development	8	42	50
Occupational analysis	9	33	58
Program evaluation	8	42	50
Program revision	7	49	43
Certification requirements	30	45	25

Respondent Observations/Concerns

Program Changes Based on Business, Industry, Labor Inputs

A series of open-ended questions were asked to get feedback from the respondents related to their experiences involving business, industry, and labor representatives in their vocational teacher education programs. In the first of these questions the chairpersons were asked to describe any significant changes that have occurred in their program as a result of using inputs from business, industry, and labor. A total of 176 chairpersons, or 58 percent of the respondents indicated that they have used inputs from business, industry, and labor in their program efforts. The items described by the chairpersons were grouped into a series of general categories. These general comment categories and the frequency of that particular type of comment are given in Table 6.

Table 6

Type of Program Change/Assistance	Response Frequency
1. Content of courses modified	54
2. Introduced new programs and established new courses	48
3. Practical experiences now offered through internships, observation, and field experiences	30
4. Industry persons used as speakers and lecturers	9
5. Provided programs for business/industry	9
6. Received equipment and materials	7
7. Established better understanding and cooperation with businessmen	5
8. Legal requirements for cooperative programs were resolved	3

9. Obtained grant support	2
10. Faculty exchange programs set up	2
11. Helped in recruitment of teachers	1

Specific Problems Encountered

Chairpersons responding to the survey were asked to describe any type of problems that they had encountered in their efforts to establish department linkages to utilize inputs from business, industry, and labor. A total of 126 chairpersons, or 42% of the respondents indicated some type of problems they encountered in trying to establish vocational teacher education department linkages with business, industry, and labor. These items were also grouped into a series of general response categories. The general problem comment categories and the frequency of that particular type of response are given in Table 7.

Table 7

Type of Problem Encountered	Response Frequency
1. Lack of time to make contacts and maintain working relationships	35
2. Financial limitations prevent exchange or other efforts	27
3. Lack of administrative interest and/ or support	14
4. Scheduling difficulties	12
5. Geographic location/distance affects cooperation	8
6. Finding/identifying the right business, industry, labor persons willing to serve as resource persons	7
7. Educators fear involvement and/or have negative attitudes concerning involvement	5

8. Reluctance of business, industry, and labor to cooperate	5
9. University paperwork too slow in approval	4
10. Instructor release time limited	4
11. Business, industry, labor lack of knowledge of university modes of operation	3
12. Business interested more in prospective sales than in education	2

Resource Information / Materials Desired

As a technique for confirming the information needs of vocational teacher educators, as well as for providing cues for the content of the project developed resource handbook, the chairpersons were requested to indicate the types of information that would be useful to vocational teacher education departments to maximize the use of business, industry, and labor inputs. The survey respondents provided some 235 suggestions and statements of information needs of vocational teacher educators. In summarizing the interests identified by the chairpersons, the types of information desired were grouped into general categories. These general comment categories and the frequency of that particular type of comment are given in Table 8.

Table 8

Types of Resource Information/Materials	Response Frequency
1. Resource materials and references describing linkage techniques/methods	64
2. Procedures for effective utilization of advisory committees	50
3. Procedures for business, industry, labor community involvement in educational program development	26
4. Model business, industry, and labor linkage programs/procedures in operation	25
5. Procedures for gaining business, industry, and labor support of linkage efforts	22

6. Background information on work experience programs and training arrangements	19
7. Procedures for gaining business, industry, and labor financial/material support for linkage activities	16
8. Procedures for developing/utilizing internships, exchange programs, and other cooperative efforts	13

Identification Resource Persons / Interests

As previously mentioned the survey of vocational teacher education departments was used as a method of gaining information that would contribute to the other project development activities involving the preparation of the Resource Handbook and in conducting the training workshop. A series of questions were included to obtain recommendations concerning vocational departments, individuals, and resource materials related to business, industry linkage development.

Recommended Departments

Department chairpersons were requested to name three vocational teacher education departments, at their institution or other institutions, that are effectively utilizing inputs from business, industry, and labor. This information was used to supplement information found in the review of current practices, and in identifying ongoing linkage activities that would aid describing program approaches in the Resource Handbook sections.

Resource Materials

To help overcome the problem of identifying the most current references, or materials not included in information systems and/or indexes, the chairpersons were asked to name various types of resource materials and references which have proven to be useful in obtaining and using business, industry, and labor inputs in vocational teacher education programs. The recommendations provided contributed to the preparation of suggested resource materials lists developed for the Resource Handbook sections.

Individuals Identified

As an additional method of identifying persons with expertise in this area the chairpersons were asked to name individuals on their staff that were most involved or knowledgeable about the involvement of business, industry, and labor in vocational teacher education programs. This information was useful in selecting members of a panel to review drafts of Resource Handbook materials, and in identifying resource persons to participate in the training workshop.

Training Workshop Interest

As an awareness device for the department chairpersons, and to aid project planning, the chairpersons were asked to indicate their interest in attending a one-day training workshop to be held at The Center for Vocational Education on April 19, 1977. Responses to this question were used later in the selection process to determine the persons in each USOE region to receive invitations to the workshop.

Implications

The survey results contributed to content decisions for the Training Resource Handbooks and for the Training Workshop. Implications and observations based on the survey results are listed below.

- Vocational teacher education departments tend to utilize business and industry to at least some extent in their pre- and inservice education programs.
- Vocational teacher education departments report only very limited involvement of organized labor representatives in their pre- and inservice education programs.
- Vocational teacher education departments report, based on their experience, moderate value in their present use of various program operations, program support, and program development techniques involving business, industry, and labor representatives.
- Vocational teacher education departments indicate a potentially high value for the proper use of various program operations, program support, and program developments involving business, industry, and labor that they are not now currently using.
- Vocational teacher education departments indicated the most frequent type of contribution made by business, industry, and labor representatives was in updating course content, setting up new programs, and in providing work experience/observations.
- Vocational teacher education departments report that the most common type of problems encountered during their efforts to establish linkages to utilize inputs from business, industry, and labor involved lack of time to establish and maintain contacts, financial limitations, and lack of administration support for activities.
- Vocational teacher education departments indicated that their major information needs related to the use of business, industry, and labor inputs focused on interests in resource materials and references, procedures for use of advisory committees, with additional concerns on model procedures/techniques that would be utilized in linkage efforts.

Other data project staff obtained from the survey results was used to select topics for the resource handbook sections, to develop format design for the handbook resource sections, to develop format and content of the project workshop, and to confirm ideas gleaned from the literature review.

Addendum Three

OVERVIEW OF THE RESOURCE HANDBOOK SECTIONS

The Resource Handbook for improving vocational teacher education linkage with business, industry, and labor was used in an EPDA Training Workshop conducted at The Center for Vocational Education, April 18-19, 1977. The training workshop and resource materials development work are part of the activities of a Center project sponsored by the U.S. Office of Education and the Ohio Department of Education, Division of Vocational Education under EPDA Part F, Section 553 as a national priority project entitled: "Improving Business, Industry, Labor Inputs into Personnel Development Programs."

The Resource Handbook has been prepared based on information gathered during literature searches, contributions of individual vocational teacher educators, inputs from the project planning committee and work session review panel, and the development effort and adaption by project staff of ideas thought most appropriate to the needs of vocational teacher education departments. The choice of the eight topics developed in each of these handbook sections was based on the stated needs of respondents to a national survey of vocational teacher education departments conducted as part of project activities for identifying existing business, industry, and labor linkages.

The development of the resource handbook for improving vocational teacher education department linkages with business, industry, and labor was guided by several basic objectives. These included a desire to:

1. Identify various types and sources of information appropriate to the business, industry, and labor interests of vocational teacher education departments.
2. Describe for vocational teacher educators appropriate ways to access and utilize selected business, industry, and labor information resources.
3. Organize and present resource information in a way that encourages its use in meeting the business, industry, and labor linkage objectives of vocational teacher education departments.

The eight topics featured in the Resource Handbook sections include:

#1 Staff Development-

Resource Handbook Feedback

Creating a staff Development Plan for Business, Industry, and Labor Involvement.

#2 Advisory Committees-
Utilizing Business, Industry, and Labor Advisory Committees.

#3 Cooperative Internships-
Establishing Cooperative Internship Programs Involving Business, Industry, and Labor.

#4 Personnel Exchange Programs-
Establishing Personnel Exchange Programs Involving Business, Industry, and Labor.

#5 Workshops-
Involving Business, Industry, and Labor Through Workshop Programs.

#6 Site Visits-
Conducting Business, Industry, and Labor Site Visits.

#7 Resource Persons-
Involving Resource Persons From Business, Industry, and Labor.

#8 Program Support-
Securing Program Support for Business, Industry, and Labor Involvement.

Resource Handbook Feedback

The development of this type of resource handbook series requires the continual input of fresh ideas and reactions in order to make the final product as useful as possible to vocational teacher educators. Inside the back cover of each of the Resource Handbook Sections there is a feedback reaction sheet for submitting your suggestions for improving business, industry, labor, and education linkages. Ideas are asked for concerning:

1. Suggestions for other linkage ideas and approaches.
2. Linkage problems that are unique to various types/sizes of teacher education departments.
3. Suggestions for references and resource materials.

4. Identification of additional planning steps and procedures.

5. Additional comments.

Handbook Section Format

The handbook sections contain a core of similar types of material with flexibility in format built in as the subject matter dictates. The format for each is as follows:

Introduction-	This part of the handbook section contains a need statement, statement of the contributions and benefits of this approach to the department faculty, overview of the handbook section, and a list of objectives for the handbook section.
The Basic Approach-	Included in this part are descriptions of the basic activities that are common to programs involving the chosen approach.
Alternative Approaches-	Alternative forms and procedures are presented in this section to aid departments in developing plans that are unique to their own situation.
Administrative Details-	Part of planning involves investigating and establishing policies and procedures. This part contains suggested items to consider.
Planning Notes:	This part is designed to help the faculty develop plans for the effective use of the particular approach by the department.
Selected References-	References in this part include sources of information used in the handbook section as well as additional references that may be helpful to your department.
Resource Materials-	The example materials contained in this part are illustrative of the types of materials the department would be developing as part of its involvement using a particular approach.

Handbook Section Description

Staff Development

Creating a Staff Development Plan
For Business, Industry, and Labor Involvement

Developmental Objectives

This handbook section is designed to promote vocational teacher education department linkages with business, industry, and labor through a staff development plan. Based on the reading, adapting, and implementation of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Design and develop department and individual professional development plan to interact with the private sector;
2. Develop planning criteria based on program goals;
3. Assess how well staff development programming is being effectively utilized by the department;
4. Select appropriate strategy(ies) for your department;
5. Prepare a department plan/procedures for staff development;
6. Locate and use available needed reference materials;
7. Design and prepare appropriate aids to assist in planning, implementing, and evaluating activities.

Handbook Section Description

The handbook section describes activities that are common to planning and implementing staff development activities to increase business, industry, and labor inputs into vocational teacher education department programs. A model procedure is described. Alternative forms and procedures to aid departments in developing unique plans include alternative forms of responsibility, time alternatives and alternatives for staff participation. The Administrative Details part deals with potential barriers, guidelines for involvement, hints from practitioners, and incentives for participation.

Handbook Section #2

Advisory Committees

Utilizing Business, Industry, And Labor Advisory Committees

Developmental Objectives

This handbook section is designed to promote vocational teacher education department linkages with business, industry, and labor through the use of advisory committees. Based on reading about, adapting, and the implementation of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Utilize advisory committees to foster linkages with business, industry, and labor;
2. Develop criteria for use of advisory committees based on department linkage goals;
3. Assess how well advisory committees are being used by the department;
4. Prepare a department plan or procedure for utilization of advisory committees;
5. Locate and utilize available needed reference materials and involve resource persons;
6. Design and prepare appropriate aids to assist in planning, conducting, and evaluating advisory committee activities.

Handbook Section Description

The handbook section describes activities that are common to planning and utilizing most advisory committees. A model procedure is described, including resources required. Alternative types of advisory committees and alternative functions of advisory committees are discussed in the next part of the handbook section. Administrative Details discussed include items to consider in investigating and establishing policies and procedures.

Handbook Section #3

Cooperative Internships

Establishing Cooperative Internship Programs Involving Business, Industry, and Labor

Developmental Objectives

This handbook section is designed to promote vocational teacher education department linkages with business, industry, and labor through the use of cooperative internship techniques. Based on the reading, adapting and implementation of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Design and implement cooperative internships;
2. Develop criteria for cooperative internships based on department linkage goals;
3. Assess how well cooperative internship experiences are being used by the department;
4. Select appropriate cooperative internship strategies for your department;
5. Prepare a department plan or procedures for pre-service and in-service teachers;
6. Locate and utilize available reference materials;
7. Design and prepare appropriate aids to assist in planning, coordinating, and evaluating cooperative internship activities.

Handbook Section Description

The handbook section describes activities that are common to planning and implementing cooperative internships for pre-service and inservice teachers. A model procedure for internships is described that includes activities such as using an advisory committee and awarding credit. Alternative Approaches includes discussion of conference calls, scheduling alternatives, and the consortia approach. Administrative Details emphasizes policies and procedures to be examined and established.

Handbook Section #4

Personnel Exchange Programs

Establishing Personnel Exchange Programs
Involving Business, Industry, and Labor

Developmental Objectives

This handbook is designed to promote vocational teacher education department linkages with business, industry, and labor through the use of personnel exchange programs as part of a faculty staff development plan. Based on the reading, adapting, and implementing of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Design and implement personnel exchange programs;
2. Develop program criteria based on department goals;
3. Assess how well the personnel exchange program is being effectively utilized by the department;
4. Select appropriate strategy(ies) for your department;
5. Prepare a department plan/procedure for a department personnel exchange program;
6. Locate and use available, needed reference materials;
7. Design and prepare appropriate aids to assist in planning, implementing, and evaluating the programs.

Handbook Section Description

The handbook section describes activities that are common to planning and implementing personnel exchange programs involving department faculty members. Model procedures for establishing teacher education visits to business, industry, and labor sites and for establishing business, industry, and labor representative visits to the college or university are described. Alternative Approaches discussed include alternative schedules. Administrative Details focuses on policies and procedures both for education and labor as well as faculty incentives for participating in this type of a program.

Handbook Section #5

Workshops

Involving Business, Industry, and Labor Through Workshops

Developmental Objectives

This handbook section is designed to promote vocational teacher education department linkages with business, industry, and labor through the use of the workshop approach. Based on the reading, adapting, and implementation of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Plan and implement workshops to provide linkage experiences;
2. Develop related criteria based on department goals;
3. Assess how well workshops are being effectively utilized by the department;
4. Select appropriate strategy(ies) for department needs;
5. Prepare department plan/procedures for organizing workshops;
6. Locate and utilize available needed reference materials and resource persons;
7. Design and prepare aids to assist in planning, implementing, and evaluating activities.

Handbook Section Description

The handbook section describes activities that are common to planning, conducting, and evaluating workshops and other related approaches. The Workshop Approach discusses basic steps involved, such as determining needs of participants and evaluating the workshop. Resources discussed in this part include budget and resource persons. Alternative Approaches includes types of meetings, alternate learning strategies and exhibits. Administrative Details focuses on examining and establishing policy and procedures such as open/closed registration and reimbursement procedures.

Handbook Section #6

Site Visits

Conducting Business, Industry, and Labor Site Visits

Developmental Objectives

This handbook section is designed to promote vocational teacher education department linkages with business, industry, and labor through the use of site visit experience techniques. Based on reading about, adapting, and the implementation of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Plan and implement site visits that provide needed linkage experiences;
2. Develop criteria for site visit selection based on department linkage goals;
3. Assess how well site visit experiences are being used by the department;
4. Select appropriate site visit strategies for your department;
5. Prepare a department plan or procedures for faculty and student utilization of site visits;
6. Locate and utilize available site visit opportunities and resource persons.

Handbook Section Description

The handbook section describes activities that are common to planning and conducting business, industry, and labor site visits. Activities described include activities such as determining needs and objectives of participants and planning evaluation activities. Alternative Approaches includes types of itineraries, alternative follow-up reports and alternative outcomes. Administrative Details includes discussion of the Occupational Safety and Health Act (OHSA), time concerns, policy, meeting needs, and developing a resource file.

Handbook Section #7

Resource Persons

Involving Resource Persons From Business, Industry, and Labor

Developmental Objectives

This handbook section is designed to promote vocational teacher education department linkages with business, industry, and labor through the use of resource persons. Based on the reading, adapting and implementation of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Identify and select business, industry, labor resource persons;
2. Develop criteria to select resource persons based on department goals;
3. Assess how well resource persons are being effectively utilized by the department;
4. Select appropriate strategy(ies) for your department;
5. Prepare a department plan/procedures for your department;
6. Utilize available reference materials and resource persons;
7. Design and prepare appropriate aids to assist in planning, implementing, and evaluating activities.

Handbook Section Description

The handbook section describes activities that are common to identifying, selecting, and utilizing representatives of business, industry, and labor as resource persons in vocational teacher education programs. Planning requirements described include activities such as determining needs and evaluating resource persons. Alternative Approaches includes sources to investigate and the use of a variety of audio-visual techniques. Administrative Details focuses on determining policy and procedures, copyright, and clearance.

Handbook Section #8

Program Support

Securing Program Support for Business, Industry, and Labor Involvement

Developmental Objectives

This handbook section is designed to promote implementation of vocational teacher education department linkages with business, industry, and labor through the use of external support. Based on reading about, adapting, and implementation of the strategies and techniques presented in this section, department staff will be able to more effectively:

1. Secure program support to foster linkages with business, industry, and labor;
2. Develop criteria for seeking external support based on department linkage goals;
3. Assess how well sources of program support are being used by the department;
4. Select appropriate program support and funding strategies for the department;
5. Prepare a department plan or procedures for securing additional program support;
6. Locate and utilize available reference materials and involve resource persons;
7. Design and prepare appropriate aids to assist in planning, conducting, and evaluating department resource development efforts.

Handbook Section Description

The handbook section describes activities that are common to planning and implementing activities for program support. A model procedure is described that includes activities from determining needs to evaluating results. Alternative Approaches includes a discussion of government grants, foundation funding, contracted services, and in-kind support. Administrative Details focuses attention on items to be considered in examining and establishing policy and procedures as they relate to program support.